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STATEMENT

EXHIBITING THE

RAL AND MATERIAL PROGRESS AND CONDITION

OF

INDIA

DURING THE YEAR 1892-93.

TWENTY-NINTH NUMBER.

(*PRESENTED PURSUANT TO ACT OF PARLIAMENT.*)

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TABLE OF CONTENTS.

	PAGE
I. ADMINISTRATION AND LEGISLATION:	
Administration	3
Legislation	4
II. LOCAL GOVERNMENT, MUNICIPALITIES, AND SANITATION:	
Local Self Government	5
Municipalities	5
District Boards	12
Port Trusts	15
Sanitation	19
III. CRIME, POLICE, JAILS, AND JUSTICE:	
Crime and Police	24
Criminal Justice	27
Jails	30
Civil Justice	32
IV. REGISTRATION:	
Registration	35
Joint Stock Companies	37
V. FINANCE:	
Finance	39
Capital Outlay on Public Works	41
Debt	41
Savings Banks and other Deposits	42
Cash Balances	42
Coinage and Paper Currency	43
Opium	44
Salt	46
Excise	49
Stamps	60
Customs	61
Provincial Rates	61
Income Tax	62
VI. SURVEYS AND SETTLEMENTS:	
Surveys	65
Settlements and Cadastral Surveys	68
VII. LAND REVENUE (INCLUDING FISHERIES, CAPITATION TAX, &c.) AND GOVERNMENT AND WARDS' ESTATES:	
Land Revenue	74
Government and Wards' Estates	81
VIII. FORESTS	84
IX. AGRICULTURE AND MINERAL RESOURCES:	
Agriculture	90
Horse Breeding	95
Wheat	96
Oilseeds	96
Rice	97
Cotton	97
Tea	98
Coffee	99
Chinchona	99
Jute	100
Indigo	100
Coal	100
Iron	101
Earth Oil	101
Gold	102
Rubies	102
X. PUBLIC WORKS:	
Public Works	103
Railways	104
Irrigation	110
Buildings and Roads	120
Military Works	121
Civil Works	121
XI. POST OFFICE AND TELEGRAPHS:	
Post Office	131
Telegraphs	133
Indo-European Telegraph Department	137
XII. EDUCATION AND LITERATURE:	
Education	140
Literature and the Press	144
XIII. EMIGRATION AND MIGRATION:	
Emigration	146
Migration	147
XIV. TRADE AND MANUFACTURES:	
Trade	14[illegible]
Manufactures	150
Factory Act	154
XV. NATIVE STATES AND FRONTIER RELATIONS, ARMY, AND MILITARY OPERATIONS:	
Frontier Relations	156
Internal States	159
Transmarine Dependencies and Interests	167
Army	168
Military Operations	170
APPENDIX:	
Tables of Net Revenue and Expenditure	17[illegible]

India Office,
2 July 1894.

A. Godley,
Under Secretary of State for India.

I.

ADMINISTRATION AND LEGISLATION.

ADMINISTRATION.

In the Home Administration the Right Honourable Viscount Cross, G.C.B., continued to be Secretary of State until the 19th of August, when the Right Honourable the Earl of Kimberley, K.G., assumed charge of the office. Mr. Arthur Godley, C.B. (now Sir Arthur Godley, K.C.B.), continued to be Permanent Under Secretary of State throughout the year. The Honourable George N. Curzon, M.P., remained in office as Parliamentary Under Secretary of State, until succeeded on the 19th August by Mr. George W. E. Russell, M.P. There were no changes in the Council of India.

The Marquis of Lansdowne, G.M.S.I., G.C.M.G., G.M.I.E., continued to be Governor General of India during the year. On the 7th April Sir Charles Crosthwaite, K.C.S.I., entered upon the office of Ordinary Member of the Council of the Governor General, to which he had been re-appointed, in place of Colonel Robert C. B. Pemberton, R.E., a Temporary Member of the Council. On the 28th of November Sir Charles Crosthwaite succeeded to the office of Lieutenant Governor of the North Western Provinces and Chief Commissioner of Oudh, and his place in the Council was taken by Sir Charles Pritchard, C.S.I., K.C.I.E. There were no other changes in the constitution of the Council of the Governor General.

Bengal.

Sir Charles Elliott, K.C.S.I., was Lieutenant Governor of Bengal throughout the year.

North Western Provinces and Oudh.

Sir Auckland Colvin, K.C.M.G., K.C.S.I., C.I.E., continued to be Lieutenant Governor of the North Western Provinces and Chief Commissioner of Oudh until the 28th of November, when he was succeeded by Sir Charles Crosthwaite, K.C.S.I.

Punjab.

Sir Dennis Fitzpatrick, K.C.S.I., continued to be Lieutenant Governor of the Punjab throughout the year.

Burma.

Sir Alexander Mackenzie, K.C.S.I., continued to be Chief Commissioner of Burma until the 14th of May, when he obtained furlough out of India. In his absence, Mr. Frederick W. R. Fryer, C.S.I., was appointed to officiate as Chief Commissioner.

Central Provinces.

Sir Antony MacDonnell, K.C.S.I., continued to be Chief Commissioner of the Central Provinces.

Assam.

Mr. William E. Ward, C.S.I., continued to be Chief Commissioner of Assam.

Ajmere-Merwara.

Colonel George H. Trevor, C.S.I., continued to be Chief Commissioner of Ajmere-Merwara during the year.

Coorg and Bangalore.

General Sir Harry N. Prendergast, K.C.B., V.C., officiated as Chief Commissioner of Coorg and Resident at Bangalore until the 16th of April, when Colonel Philip D. Henderson, C.S.I., was appointed to the office.

Madras.

The Right Honourable Lord Wenlock, G.C.I.E., continued to be Governor of Madras; Lieutenant General Sir James Dormer, K.C.B., to be Commander in Chief and second in Council; and Sir Henry Stokes, K.C.S.I., and Mr. John H. Garstin, C.S.I., to be Senior and Second Civil Members of Council, respectively, throughout the year.

Bombay.

The Right Honourable Lord Harris, G.C.I.E., continued to be Governor of Bombay during the year; and Sir George R. Greaves, K.C.B., K.C.M.G., to be Commander in Chief. Sir Raymond West, K.C.I.E., continued to be Third Member of Council until the 23rd of April, when his place was taken by Sir Charles Pritchard, K.C.I.E., C.S.I., and Mr. Herbert M. Birdwood succeeded Sir Charles Pritchard as Fourth Member. On the 16th of November Mr. Arthur C. Trevor took his seat as Fourth Member, a vacancy in the Council having been caused by the appointment of Sir Charles Pritchard as an Ordinary Member of the Council of the Governor General.

LEGISLATION.

LEGISLATION.

During the year 1892 the Indian Councils Act of 1861 was amended by Act 55 & 56 Vict. c. 14, which enabled the Governments in India to make considerable additions to their Legislative Councils, and introduced for the first time the principle of popular representation into those Councils. In the exercise of the powers thus conferred on them, the Government of India and the Governments of the various provinces have made rules for, and have proceeded with, the nomination of additional members of their Councils. But, in some cases these measures were not taken till after the end of the year with which this Statement deals, the account of them is deferred until the next number.

In the year 1892–93 twelve Acts passed by the Council of the Governor General for making laws and regulations received the assent of the Governor General. The first meeting of the Council at Simla was held on the 28th July, and the last on the 20th October. The Council reassembled at Calcutta on the 12th January 1893.

Of the Acts passed, the most important were Act IX. of 1892, which provided for the administration by head-men of towns in Lower Burma; Act IV. of 1893, which empowers the Courts in certain circumstances to effect the partition of estates by sale and distribution of the proceeds, instead of by actual division; and Act VII. of 1893, which made some important amendments in the Inland Emigration Act of 1882.

No Acts passed by the Council of the Lieutenant Governor of Bengal received the assent of the Governor General during the year under review.

Three Acts were passed by the Council of the Lieutenant Governor of the North Western Provinces and Oudh, and received the assent of the Governor General, providing, respectively, for the regulation of lodging-houses in municipalities, for village sanitation, and for the constitution of Village Courts.

Two Acts, viz., an Act to amend the City of Madras Municipal Act, and an Act to repeal certain obsolete enactments, were passed by the Madras Council, and assented to by the Governor General.

Three Acts were passed by the Bombay Council, and received the assent of the Governor General, viz., the Bombay District Vaccination Act, and Acts to amend the Bombay Salt Act and the Bombay Abkari Act respectively.

CHAPTER II.

LOCAL SELF-GOVERNMENT, MUNICIPALITIES, AND SANITATION.

Local Self-Government, Municipalities, and Sanitation.

In every province of India a great deal of local business is done, considerable funds are raised and spent, and valuable service to the public is performed, by local bodies which are constituted and exercise their functions under different enactments. Municipal committees exist in most towns of the Indian Empire, and have charge of municipal business generally, including the care and superintendence of streets, roads, water supply, education, hospitals, and police. The number of such committees in each province is given in the body of this chapter. Local and district boards have charge of local roads, sanitary works, schools, hospitals, and dispensaries in rural districts. Bodies of port trustees have charge of harbour works, port approaches and pilotage. There are, besides, less numerous local bodies discharging similar duties in towns, other than constituted municipalities, and in cantonments. The importance of the work of local administration performed by these various authorities is best shown by a statement of the funds at their disposal. The income of the municipalities for 1892–93, apart from loans obtained for special works, was Rx. 3,496,922. The sources of this income and the yield of each source are shown in the Table on page 18. Figures are not available for an exact statement of the revenue enjoyed by the local and district boards during the year; but the chief source of income, the local cess levied on land "for expenditure on roads, schools, hospitals, and general purposes," gave a gross yield of Rx. 2,058,273; and among other sources of income belonging to the local boards are tolls on ferries and roads, school fees, the rent of corporate property, and the grants made by Government for educational and medical purposes. The educational grant in 1892–93 was Rx. 1,434,234, and the medical grant was Rx. 926,165; a great part of these sums is administered by local boards.

The port funds, under the management of port trustees and other local bodies, amounted in 1892–93 to Rx. 1,161,794.

Cantonment funds amounted to Rx. 193,705; and town and bazaar funds to Rx. 80,394.

Thus, the revenue from all sources managed by the various local bodies amounts to more than Rx. 9,000,000; of which amount less than half is shown in the Accounts of the Government of India and in the financial section and appendix of this Statement, founded thereon.

MUNICIPALITIES.

Municipalities. General.

Throughout India the cities and larger towns manage their own local affairs through the agency of commissioners or committees appointed from among the citizens. The municipal bodies exist, raise funds, and exercise powers under enactments which provide separately for the special requirements of each province, and of the three presidency capitals, Bombay, Calcutta, and Madras. In most places the majority of the commissioners or committees are elected by the townsfolk under legal rules, but in every town some, and in some minor towns all, are appointed by the Government; and in almost every municipal body one or more Government officials sit as members; the number of Indian and non-official members, however, everywhere exceeds the number of Europeans and officials. The municipal bodies are subject to the control of the Government in so far that no new tax can be imposed, no loan can be raised, no work costing more than a definite sum can be undertaken, and no serious departure from the sanctioned budget for the year can be made, without the previous sanction of the Government; and no rules or bye-laws can be enforced without similar sanction and full publication.

The sources of municipal revenue are mainly:—

House tax,	Water rates,
Tax on rentals,	Conservancy rates,
Octroi duties,	Rents of public lands and properties,
Bazaar or market rents,	Public gardens and parks.
Carriage tax,	

MUNICIPALITIES.

The objects on which municipal funds can be spent are, mainly, water supply, hospitals and dispensaries, streets and roads, vaccination, drainage, sanitation and education. Municipalities do more for the benefit of their citizens under these heads than was done before by Government officers; and the commissioners or committees generally evince diligence and public spirit in the performance of their honorary duties. The interest in the municipal elections, and in municipal affairs generally, has in some places slackened; but for the most part, as education and knowledge advance, interest in the management of local affairs gradually increases. It is reported from most provinces that municipal work is fairly well done, and municipal responsibilities are on the whole faithfully discharged, though occasional shortcomings and failures occur in particular towns. The tendency of these local bodies is to be slow in incurring new expenditure; and they are generally unwilling to impose new taxes even for purposes that are in themselves beneficial. Many members of municipal bodies are diligent in their attendance to work, whether at meetings for business or on benches for decision of petty criminal cases. The more important totals of municipal statistics for British India for 1892–93 were—

Number of municipal towns		761
Total population of ditto as per census of 1881		15,024,308
Total income of ditto inclusive of loans	Rx.	4,220,561
Total expenditure of ditto	„	4,013,696
Yield of octroi duties	„	804,450
Yield of direct taxes, or imposts other than octroi	„	1,440,045
Amount of loans credited in the income of the year	„	1,184,547

Bengal. Calcutta.

The Calcutta Municipality consists of 75 commissioners, of whom 50 are elected and 25 nominated. The executive consists of a general committee of 18, seven standing committees, and a number of special committees which are appointed as occasion arises. The various bodies held 231 meetings during the year, at which the average attendance was 57 per cent. of the respective members. The average attendance of the elected commissioners was 14 per cent. higher than that of the nominated commissioners. The income of the municipality during the year was Rx. 430,043, the chief items being Rates, Rx. 331,199, and Taxes on Professions, &c., Rx. 53,661. The expenditure of the year was Rx. 436,363. The total debt of the city is Rx. 2,300,611. During the year there was paid off Rx. 23,305. The stock commands a high price in the market. The income is likely to increase considerably owing to the re-assessment which is continually going on in the city.

Satisfactory progress was made with some important public undertakings during the year. The Harrison and the Lansdowne roads were completed, the water supply was improved by the construction of two new settling tanks to hold 48,000,000 gallons, and a flushing reservoir holding 300,000 gallons was constructed in connection with the drainage system near the Bhawanipur pumping station. The drainage system of the town is virtually completed. The total daily water supply is now more than 24,000,000 gallons, of which more than 20,000,000 gallons are filtered. The municipality is still very backward in its contributions towards education.

The opinion of the local government on the work of the year was that "the commissioners, as a whole, displayed a care and attention to their duties which were very meritorious, and in some cases rose to the level of devotion." A want of vigour in certain executive matters is, however, noticed, especially in the collection of the rates.

Bengal. Interior of Province.

In the interior of Bengal there were 146 municipalities, one small new one having been established at the beginning of the year. The population living within municipal limits was 2,731,182 persons, or 3·9 per cent. of the whole population of Bengal, excluding Calcutta. The number of ratepayers entitled to vote at municipal elections was 464,800, or one in six of the municipal population. The municipalities varied in size, from Patna with 167,000 inhabitants, and Howrah with 116,000, to Nalchiti in Backergunge with 1,675; the majority, however, had populations of between 5,000 and 15,000 inhabitants. In 118 of the 146 municipalities two-thirds of the commissioners are elected by the ratepayers, in the rest the government, in consequence either of the backwardness of the locality or of the intensity of party feeling, exercises the power of nomination. In two municipalities, general elections took place during the year, and in each case there were fourteen candidates

candidates for eight seats. There were 88 bye-elections, of which 43 were uncontested and two failed altogether; in the one case because no candidate was nominated in time, and in the other because of the non-attendance of voters. Of the 2,139 commissioners there were 1,158 elected and 981 nominated, 369 officials and 1,770 non-officials, 1,946 Indians and 193 Europeans. Among the non-official commissioners were included 481 zamindars, 508 pleaders and law agents, and 270 merchants and money-lenders. MUNICIPALITIES.

The number of meetings held during the year showed a general improvement on the preceding year. In 40 municipalities more than 20 meetings were held, as against 37 in 1891-92; in only 15, as against 22 in 1891-92, were there less than the prescribed minimum of one in each month. The attendance was unequal; in only 86 out of the 146 was it on the average more than 50 per cent. of the members, in three it was less than 10 per cent. The amount and nature of the business done is best seen from the figures, which show how the municipal funds were collected and expended. Exclusive of extraordinary and debt account the total income was 28$\frac{7}{10}$ lakhs, of which 21$\frac{3}{4}$ lakhs came from municipal taxation, and nearly 3 lakhs from municipal property and powers apart from taxation. The total expenditure was 28$\frac{9}{10}$ lakhs. The chief heads of outlay were: administration 3$\frac{2}{5}$ lakhs, public safety (fire establishments, lighting, police, &c.) 2 lakhs, water supply 2$\frac{1}{5}$, drainage 1, conservancy 8$\frac{2}{5}$, hospitals and dispensaries 2$\frac{3}{4}$, education 1$\frac{1}{3}$. There was a closing balance to the credit of the municipalities of 4$\frac{1}{2}$ lakhs. The most noteworthy feature of the year's accounts is the great increase (amounting to 141 per cent.) in the amount spent on water works. In nearly all the divisions of the Province the municipalities have made greater efforts than in preceding years to procure a much-needed increase in the supply. Improvements in drainage are rendered difficult by the absence of professional supervision and the want of funds to carry out comprehensive schemes. In some large towns, however, considerable sums have been spent under this head, and levels have been taken preliminary to the preparation of satisfactory schemes. In various parts of Bengal the expense of medical and other public establishments, which would otherwise have had to be provided, if at all, by the municipalities, has been met by the kindness of native gentlemen.

The number of municipalities in the North-West Provinces and Oudh was 103, being the same as in the previous year. In all but seven of these towns the majority of the members of municipal boards are elected by the ratepayers, who amount to about 1·7 per cent. of the municipal population of 3,267,999. Elections were held in 68 municipalities during the year, the proportion of the electorate that went to the poll ranged from 16 to 87 per cent. In 97 towns the municipal boards elected their own chairman, but in only six cases did they choose non-officials. The total number of municipal members was 1,562, divided thus:— North-West Provinces and Oudh.

Elected - -	1,248	Non-officials -	1,268	Indians - -	1,403
Nominated or *ex-officio*.	314	Officials - -	294	Europeans -	159

Each municipality held, on the average, 20 general meetings in the year; eight held 30 meetings and over. For all the municipalities of the province the average attendance of members at each meeting was 54 per cent.; in one town, Kashipur, the average attendance at each meeting reached 80 per cent., and in one it fell as low as 40 per cent. of the total members. Most municipalities have provided themselves with bye-laws, which are carefully revised from time to time.

The chief source of municipal taxation is the octroi duty, which is in force in 83 towns, and yielded Rx. 219,847; while other taxes yielded Rx. 44,228; Rx. 75,000 accrued from rents and miscellaneous sources. The incidence of income from taxation was 12$\frac{5}{8}$ annas (over three quarters of a rupee) per head of the municipal population. The total municipal income of the year was Rx. 369,500, besides Rx. 122,035 borrowed from Government, for works of water supply and drainage. Out of the normal expenditure of Rx. 500,000, 45 per cent. was devoted to conservancy, hospitals, drainage, streets, roads, public works, and other objects for promoting the public health and convenience; 3$\frac{1}{2}$ per cent. was spent on education, 13$\frac{1}{2}$ per cent. on police, lighting, and fire establishments.

MUNICIPALITIES.

The towns which spent most on water supply, drainage, and public works during the year were Cawnpore, Rx. 87,000; Benares, Rx. 70,000; Lucknow, Rx. 25,000; Agra, Rx. 16,000, and Allahabad, Rx. 14,500. In Cawnpore the foundation stone of the new waterworks was laid by Sir Auckland Colvin in March 1892, and in 1892–93 Rx. 30,000 was taken as a loan from the Government towards their erection. In Benares the waterworks, which have cost Rx. 255,822, were completed and opened in November 1892, and are working excellently; the contract for the new drainage works was given out and operations were begun during the year; the estimated cost of the project is Rx. 190,000. In Naini Tal and Mussoorie important waterworks and drainage works are rapidly approaching completion.

The local government is of opinion that on the whole the result of the year's working was good, and that the progress made with sanitation in the large cities was marked.

Punjab.

The number of municipalities in the Punjab was 149, containing a population of 2,014,833, and during the year four small towns were given a modified form of municipal administration without being constituted as municipalities. On 110 municipal committees, two-thirds or more of the members are chosen by the ratepayers, in 11 all the members are *ex-officio* or nominated, in one town the deputy commissioner of the district exercises the power of a committee. The total number of members on all the committees was 1,657, divided thus:—

Non-official - - -	1,342	Indians - - - -	1,529
Official - - - -	315	Europeans or Eurasians -	128

Elections were held during the year in several considerable towns, such as Delhi, Simla, Ferozepore, Amritsar, Mooltan, Rawal Pindi. In most cases a fair amount of interest was displayed. In Delhi there voted for two contested seats 144 out of 255 persons entitled to do so. In Amritsar 85 per cent. of the voting papers issued at the general election were utilised. At Ludhiana more than half the voters polled. In 47 towns the committees failed to hold the minumum of 12 meetings as prescribed by law. Standing sub committees have been appointed in all but the smallest municipalities, and have been found to afford great assistance to the general committees. The working of the committees was reported to be generally satisfactory in all the divisions.

The chief municipal tax was the octroi, which yielded Rx. 257,611 in 145 towns, while the other taxes produced Rx. 18,952; the incidence of the total revenue from taxation was about $1\frac{3}{5}$ rupees per head of the population; the yield of taxation was about 4 per cent. below the total of the preceding year, which was one of unusual prosperity. The total municipal income of the year from all sources was Rx. 446,756, of which Rx. 62,373 was from loans and other extraordinary sources; and the expenditure was Rx. 449,797, out of which Rx. 221,521 were devoted to conservancy, waterworks, hospitals, buildings, roads, and other objects for promoting the public health and convenience; 14 per cent., Rx. 53,365, were spent on education, and Rx. 63,207 on fire, lighting, and police establishments, and other ways of promoting the public safety. The liabilities of the municipalities at the end of the year were Rx. 363,214, of which Rx. 342,914 was owing to Government. The loans had been raised for waterworks, sewerage, and protection against inundation.

Burma.

The number of municipalities in Lower Burma was 25, as in the previous year, and they contained a total population of 513,365. In 39 of these towns a majority of the municipal members are elected by the ratepayers, in 2 rather less than half are elected, in 14 all the members hold their position either *ex-officio* or by special nomination. The decision in the case of each municipality, as to whether the method of election or that of nomination shall be adopted, rests with the local government. There are in all 322 members on the several committees, divided thus:—

Elected - -	105	Non-officials -	240	Asiatics - -	240
Ex-officio and nominated.	217	Officials - -	82	Europeans -	82

Several

Several elections were held during the year. The provincial report mentions that in the important towns of Moulmein, Akyab, and Pegu little interest was aroused. MUNICIPALITIES.

The chief sources of municipal taxation are the rates on the annual value of houses and lands, yielding Rx. 45,728 out of the total income from taxation of Rx. 87,346; water rates yielding Rx. 16,678, and conservancy rates Rx. 13,598. The other chief sources of municipal revenue were municipal property and powers, apart from taxation, Rx. 79,410, provincial and other grants and contributions Rs. 44,487. The total income of the year, apart from loans and debt account, was Rx. 229,459. The receipts under the head Extraordinary and Debt amounted to Rx. 36,233. The total expenditure of the year, apart from the debt account, was Rx. 212,337, of which the chief items were Rx. 141,577 spent on water supply, drainage works, conservancy, hospitals, vaccination, markets, slaughter-houses, pounds, registration, public works, and other objects for the promotion of the public health and convenience, and Rx. 16,212 spent on public instruction. The expenditure that came under debt accounts was Rx. 44,409.

In Rangoon the Shone sewage system has been further extended during the year, and arrangements have been made for reclaiming the low-lying area at the east of the town, and for improving and increasing the water supply. In some, especially of the smaller municipalities, education and sanitation are not yet making satisfactory progress. Besides municipalities there are ten other places in Lower Burma where town funds are raised, the amount during the present year being Rx. 21,746, and are managed by committees nominated from among the townsfolk.

The number of municipalities in Upper Burma fell from 16 to 15; Mandalay, Myingyan, Pakokku, Salin, and Pyinmana are the only towns that contain a population of over 10,000. The total municipal population is 326,802, of whom 188,815 belong to Mandalay. The total number of members of municipal committees is 189, of whom 86 are non-officials and 103 are officials, while 124 are Asiatics, and 65 are Europeans. All the members are nominated, none are elected.

The total income of all municipalities in Upper Burma, apart from extraordinary and debt account was Rx. 66,382, of which Rx. 42,967 pertained to Mandalay. The total ordinary expenditure was Rx. 64,024. Public health and convenience (including the same items as in the accounts of Lower Burma) cost Rx 38,540, public safety (fire brigade, lighting, and police) Rx. 14,046, and public instruction Rx. 617.

The number of municipalities in the Central Provinces was 56, as in the preceding year; but orders for the closing of one had been issued in 1892, and similar orders for the closing of another that could not meet its engagements were sanctioned and carried out shortly after the close of the year under report. A majority of the members of all committees, except three, are elected; out of 629 members on all committees, 440 were elected, 184 were nominated, and 5 held their position *ex-officio*; 149 were officials, and 480 non-officials; 51 were Europeans, and 578 were natives of India. A fair amount of interest was shown in most elections, and a considerable proportion of voters went to the poll. The chief exception was in the municipality of Nagpur, where the old members of the committee retained their seats, having won the confidence of their fellow-citizens by work of which the Local Government speaks in terms of high praise. The total municipal receipts of the year were Rx. 124,404, of which Rx 73,364 accrued from octroi duties. The total income, apart from loans, was Rx. 20,000 below similar receipts in the previous year. The falling off was all under the head of octroi duties. The total municipal expenditure was Rx. 145,969, or Rx. 21,000 more than in the preceding year. The expenditure on waterworks was Rx. 39,000; on schools and colleges Rx. 10,000; on dispensaries and hospitals Rx. 10,000. All these items of expenditure show a substantial increase when compared with the figures for the preceding year. But there are still many municipalities with balances so large that the Local Government suggests to them the advisability of either spending more freely on useful public works, or else reducing their taxation. Central Provinces.

MUNICIPALITIES. Assam.

The number of municipal bodies in Assam was 12, as in the preceding year, of these three were first class, and three were second class municipalities, three were stations, and three were unions.

The total income of the 12 towns fell from Rx. 15,611 to Rx. 15,403, of which Rx. 8,728 accrued from taxation. The two chief items of taxation were Rx. 3,754 from rates on houses, &c., and Rx. 2,471 from tolls on roads and ferries. Among the other receipts, the larger items were Rx. 1,580 from grants, and Rx. 1,518 from markets and slaughter-houses. The incidence of municipal taxation was R. 1. 2. 6. per head of the population. The total expenditure was Rx. 15,291, of which the chief items were Rx. 7,714 on medical institutions, conservancy, drainage, and water supply, and Rx. 3,714 on roads, markets, and buildings.

Madras. Madras City.

In the municipality of Madras there are 34 members, of whom 25 are elected by 4,560 ratepayers. There was no general election during the year, and the three bye elections were all uncontested. The names on the roll of qualified voters form a little more than 1 per cent. of the total inhabitants of the city. At 21 meetings of the Commissioners, the average attendance of members was 12; nine members attended less than 10 meetings during the year; and six members lost their seats by absenting themselves from three consecutive general meetings. The total income of the year, apart from loans, was Rx. 136,947, or Rx. 3,587 more than in the preceding year; of the year's total, Rx. 108,499 accrued from taxation, which fell on the population at the rate of 2⅞ rupees per head; the principal tax is one of 10 per cent. on houses and lands. The only new tax levied during the year was a duty on tobacco, which was imposed in July 1892, and in the nine months from then to the end of the official year brought in Rx. 4,987. The total expenditure came to Rx. 109,865, of which Rx. 42,044 were spent on sanitation and conservancy; Rx. 22,212 on streets, roads, and other public works; and Rx. 18,562 on the interest for and repayment of debt. The scheme for the new water supply was slightly advanced during the year. Water from the Red Hills Lake, the chief source of supply in the municipality, was again pronounced by the analyst after each test to be "suspicious." Considerable extensions were made in the drainage of the town. The registered municipal death-rate was 46 per mille against 52·6 in 1891, and 43·1 in 1890. The mean of the decade is 37·4. The high price of food is given by the local authorities as the cause of the abnormally high rate. The condition and repair of the city roads was said to be satisfactory, four miles of road having been metalled for the first time. The outstanding debt of the municipality amounts to Rx. 272,000, against which must be set the sinking fund, which now amounts to Rx. 91,430. The payments to the sinking fund during the year were Rx. 5,106.

Interior of the Madras Presidency.

The number of municipalities in the interior of Madras was 55, as in the previous year. The councils were partly elective in 33 of these towns, as against 32 in the previous year. In 36 towns the councils elect their own chairman. There are 863 municipal councillors in all, divided thus:—

Elected - -	383	Non-officials -	668	Indians - -	713
Nominated -	480	Officials - -	195	Europeans and Eurasians -	150

There was an increase in the total municipal income, which came to Rx. 258,533; of this Rx. 129,499 came from taxation, the chief items being Rx. 59,331 from rates on lands and houses, Rx. 34,586 from tolls; and the average incidence of taxation was 12·17 annas per head of the population. The chief sources of miscellaneous receipts were fees and revenue from markets and slaughterhouses, Rx. 13,274, and grants from Government, local funds, and other sources, Rx. 48,622. The total expenditure of the year was Rx. 268,472, of which the chief items were public works, including drainage and water supply, Rx. 96,268; education, Rx. 30,089; medical services and sanitation, Rx. 76,786; lighting and miscellaneous purposes, Rx. 18,684; supervision and management, Rx. 16,668. The outstanding public debt of all municipalities was Rx. 85,839, after deducting moneys at credit of the various sinking funds.

Each town council in the interior of Madras held, on the average, 28 meetings during the year, with an average attendance of 8·5, against 8·3 in the previous year,

year, out of a strength of 16 members. During the year the construction of nine important drainage and water supply works was proceeded with, and schemes of improvement were prepared for six other municipalities. MUNICIPALITIES.

The Municipality of Bombay is administered by a committee consisting of 72 members, of whom 16 are nominated by the Government, 36 elected by the ratepayers, 16 by the justices, 2 by the Chamber of Commerce, and 2 by the University. Bombay Bombay City

The total income of the municipality, exclusive of loans, was Rx. 666,518, or Rx. 58,048 more than in the previous year; of this total, Rx. 564,448 accrued from municipal taxation rates and market receipts, the balance being chiefly received from Government and as revenue from property. The chief items of revenue were the general tax, which yielded Rx. 193,933, the water tax, which yielded Rx. 140,708, and the town duties, which yielded Rx. 97,392. The total expenditure of the year came to Rx. 921,119, of which Rx. 266,568 were from borrowed money. The chief items of outlay from current revenue were Rx. 130,156 on the public health department, Rx. 167,251 on streets and other public works, and Rx. 219,723 on the interest and sinking fund of the city debt. The daily supply of water to the city has, by the use of a new source, been increased from 16½ to 29 millions of gallons. The death-rate of the year in Bombay was 32·26 per mille against 29 in the previous year. The outstanding debt of the city at the end of the year was Rx. 2,897,626; the amount paid off during the year was Rx. 27,413. Bombay. Bombay City.

The total number of municipalities in the interior of Bombay was 176 against 174 in the previous year. The population within municipal limits was 2,292.208, or 12 per cent. of the total population of the British territory in the Presidency. The total number of municipal commissioners in these towns was 2,430, of whom 909 were elected, and the rest nominated by the Government; the proportion of Asiatics to Europeans was 10·6 to 1, and of non-officials to officials 2·5 to 1 on these bodies. Interior of the Bombay Presidency.

Throughout the greater part of the Presidency meetings were held regularly, and were well attended; but in six municipalities of the Northern Division more than half the number of members failed to attend two-thirds of the general meetings, and in three municipalities of the southern division the average attendance was less than half the members. The total income of all municipalities during the year, excluding extraordinary and debt account, was Rx. 393,925, of which Rx. 152,319 was yielded by octroi, Rx. 123,832 by other rates and taxes, Rx. 73,928 by municipal property and powers apart from taxation. The extraordinary and debt account showed a total of Rx. 113,156, the chief items being sale of securities, loans, and advances from general fund and deposits. The total expenditure, apart from extraordinary and debt account, was Rx. 391,825, of which Rx. 224,306 was spent on promoting "Public Health and Convenience," Rx. 67,998 on public instruction, Rx. 23,678 on public safety, and Rx. 49,746 on administration and collection charges. The payments under extraordinary and debt account amounted to Rx. 44,755. In Karachi new drainage work, for which an expenditure of 6 lakhs has been sanctioned, is being undertaken; in Ahmedabad large drainage works and waterworks have proved eminently successful, and in various towns new waterworks are in contemplation, or in progress. The Inspection Reports on Municipal Schools were, on the whole, fairly satisfactory.

The number of municipalities in Berar was eight, as in the previous year, and in all but one the majority of the members are elected by the ratepayers. Berar.

There are altogether 129 members, divided thus:—

Elected -	90	Non-officials -	94	Asiatics -	110
Nominated -	39	Officials -	35	Europeans -	19

In seven municipalities there occurred 30 vacancies, for which 72 candidates presented themselves. Out of 5,276 registered voters, 1,480 recorded their votes; and the proportion of voters going to the poll ranged from 17 to 49 per cent. in the different towns. The total income of the municipalities was Rx. 20,799, of which Rx. 4,450 accrued from taxes on trades and professions, Rx. 1,275 from water-rates, Rx. 1,923 from conservancy, Rx. 2,573 from a special tax on bargains in cotton and grain levied in two municipalities, and Rx. 7,371 from municipal property, markets, and institutions. The percentage of revenue from taxation to total revenue ranged from 28 per cent. to 63 per

MUNICIPALITIES.

cent. in different municipalities. The total expenditure was Rx. 19,478, of which Rx. 14,425 were spent on public health and convenience, Rx. 792 on public safety, Rx. 1,733 on public instruction, and Rx. 1,363 on administration and collection charges. Seven out of the eight municipalities contribute towards schools or colleges, and six towards libraries; two spend money on fire establishments, and six on water supply. The average attendance at municipal meetings was about half of the members of each committee.

DISTRICT BOARDS.

DISTRICT BOARDS. General.

The constitution of district boards with precise powers and responsibilities under the law took place more recently than the creation of municipalities; but in most provinces district committees had for many years given assistance or exercised control in the administration of local roads, local hospitals, and local schools. In Madras the Local Funds Act of 1871, and in Bengal the Road Cess Act of 1871, had constituted local bodies with specified powers. In all the more advanced provinces, district boards are now constituted under different enactments. In Madras, the boards have the power of proposing local taxation, and in Bengal they are empowered to decide at what rate, within the legal maximum, the road cess shall be levied in each district; but for the most part the district boards do not possess powers of taxation; they administer funds, or the yield of specific imposts, made over to them for expenditure on roads, schools, hospitals, and sanitation, within their jurisdiction. In most provinces the district boards delegate much of their detailed work to sub-divisional, or minor boards, which are constituted under the law, and are responsible for subdivisions or parts of a district.

Bengal.

In Bengal there were 38 district boards and 104 local boards. On the district boards were 793 members, of whom 309 were elected; on the local boards were 1,230 members, of whom 465 were elected. Out of the total number of 2,023 members, 395 were officials and 296 were Europeans or Eurasians. Of the non-official members, 776 were large landholders or their agents, and 510 were lawyers. During the year, there was held the third general election for members of those Boards which were constituted very soon after the passing of the Bengal Local Self-Government Act of 1885. Except in a few places the election excited little or no interest. By the constitution of the boards, every resident of a thana, or unit of police jurisdiction, who pays one rupee of local rates in the year, is entitled to vote for the member who represents his thana; a list of electors is published before each election. Elective members of district boards are chosen by all the members of local boards for the district. Members sit for three years, and are then eligible for re-election. At least 10 per cent. of the registered electors must vote at every contested election. Several of the elections in 1892–93 fell through because the required proportion of voters did not attend. In the year 1892–93 each district board held on the average 16·4 meetings; no board held more than 24, and none less than 12; and the average attendance at each meeting was less than 10 members or about 45 per cent. of the full strength. The local boards held on the average 10 meetings apiece, at which the average attendance was less than six members, or a little less than half the full strength.

The Bengal boards enjoyed during the year an income of Rx. 719,380, of which the largest items were provincial rates, levied in the form of a road cess, Rx. 362,767; contributions from provincial funds, Rx. 115,458; cattle pound fees, Rx. 45,715; and receipts from ferries and other similar sources of profit, Rx. 44,451. The provincial rates receipts showed an increase of Rx. 11,744 as compared with the previous year; and the provincial contributions an increase of Rx. 35,339. There is included in the nominal income the sum of Rx. 118,813 advanced on loan by the Government to the boards on account of various undertakings. The expenditure of the year was Rx. 702,375, of which the chief items were roads, bridges, and waterways, Rx. 428,874; education, Rx. 105,447; and famine relief, Rx. 28,671. The expenditure on sanitation, water supply, and drainage, shows an increase, but is still considered by the local government to be smaller than it should be. Of the money devoted by the boards to education, rather less than half was spent on primary education. The expenditure on famine relief was incurred chiefly in Darbhanga, where

Rx. 26,981 was spent; on the district boards falls the cost of only the earlier and minor measures of relief; when gratuitous relief or larger relief measures are required, the cost falls on the provincial or imperial funds; the relief works of the district board of Darbhanga were open from March 1892 to July 1893; and in consequence of the drain on the funds at the disposal of the board a grant of one lakh of rupees and a loan of 1⅘ lakhs were made from provincial revenues. Out of the expenditure on roads, &c., a sum of Rx. 34,033 was devoted to village roads and paths, and this outlay was in some localities supplemented by private contributions. DISTRICT BOARDS.

In the North-West Provinces and Oudh there were, as in the previous year, four district committees and forty-four district boards. The boards consisted of 1,638 members, who were divided as follows:— North-West Provinces and Oudh.

Elected -	1,286	Non-officials -	1,354	Indians -	1,558
Nominated -	352	Officials -	284	Europeans -	80

The committees consist of 77 members, who were divided as follows:—

Nominated - - -	52	Indians - - - -	61
Ex-officio - - -	25	Europeans - - -	16

The total expenditure of the boards and committees during the year was Rx. 387,794. The normal income of Rx. 263,706 (of which Rx. 190,800 came from local rates) had to be supplemented by contributions from provincial and other revenues of over 12 lakhs.

The district boards held on an average 13 meetings each, and the district committees 8 meetings each. Both on the boards and the committees the average attendance at meetings was small; at the boards it was less than 30 per cent. of the members, and at the committees less than 50 per cent.

The administration of the boards and committees during the year was, in the opinion of the Lieutenant-Governor, generally successful, and was of great help as a supplement to the general work of the government of the Province. The supervision of education and of medical relief was performed particularly well. The public works administration, which was concerned chiefly with the construction and maintenance of district roads, is also reported to have been carried out in a satisfactory manner.

In every district of the Punjab, except Simla, there was a district board constituted under Act XX. of 1883, and in every district, except Simla and seven frontier districts, there were subordinate local boards acting under the district boards. In 12 districts, situated on or near the frontier, the boards are composed entirely of nominated members, and in the other 18 the members are in part nominated, in part sit *ex officio*, and in part are elected delegates from the local boards. Of the 83 local boards 15 are filled up wholly by nomination, and 68 partly by nomination and partly by election. The total number of elected members in the whole province was 989, and of nominated and *ex-officio* members 595. Elections to the local boards were held in 12 districts during the year; in four there were just as many candidates as vacancies, in two some of the places were in default of candidates filled up by nomination, and the largest proportion of contested to uncontested seats in any district given in the Report of the Local Government is 3 to 14. The proportion of those who voted to those who were qualified to do so varied in the districts in which polls were taken from 13 to 65 per cent.; 12 out of the 30 district boards held a less number of meetings than is required by the rule of their constitution; in 13 the average attendance at meetings was less than half the number of members. Nevertheless the district officers for the most part report favourably as to the conduct and value of district boards, though unfavourably concerning the local boards. In three districts and a part of a fourth the abolition of local boards has been sanctioned by the local government. Punjab.

Excluding debt transactions, the year's income of all the boards came to Rx. 278,607, of which the chief items were Rx. 220,964 from local rates; Rx. 6,278 from school fees; Rx. 14,746 from ferry receipts; and Rx. 7,955 from gardens, veterinary establishments, fairs, &c. The total expenditure of the year was Rx. 292,268, of which the chief items were, education, Rx. 60,000; hospitals, vaccination, and other medical or sanitary charges, Rx. 33,960;

District Boards. experimental cultivation, horse and cattle fairs, veterinary and botanical charges, &c., Rx. 15,100; civil works, Rx. 112,671; to provincial funds Rx. 44,078; general administration, Rx. 12,058. Both in this year and in the previous year the district boards have spent, in addition to their annual income, a certain proportion of the large balances which have accumulated to their credit in consequence of the short outlay of earlier years.

Central Provinces. In every district of the Central Provinces except the backward tract of Mandla, district councils and local boards, subordinate to those councils, have been established. The total number of members on these bodies was 1,194, divided thus:—

Elected members -	909	Non-officials	1,073	Asiatics -	1,170
Nominated or *ex officio*.	294	Officials -	121	Europeans or Eurasians.	24

Five hundred and ninety-four meetings were called, of which only 461 were held, the other 133 falling through because the attendance was not large enough to make a quorum. In several cases the meetings of local boards fell below the prescribed yearly minimum. The local Government consider that the insufficient interest shown in these institutions is largely due to the recency of their introduction, and that with time and wise treatment better results may be looked for.

The maintenance and construction of metalled roads is undertaken by the Provincial Public Works Department in behalf of the councils, which, however, advise upon all road projects within their jurisdiction. Education is the most important matter with which the councils deal; they have charge of all primary and many middle schools, and they administer the grant-in-aid funds available for rural schools. In many cases their efforts have been seconded by the liberality of private persons. A scheme for rural sanitary reform has been started, whereby it is hoped that sanitary improvement may become a reality, and district councils have been called upon to allot in its help a certain portion of their funds. The total grant-in-aid made for that purpose in 1892–93 was Rx. 5,000. The amount spent in improving the water supply shows a satisfactory increase on the previous year, being Rx. 15,821, as against Rx. 7,212 in 1891–92, and there has been of late a general increase of activity in the matter of village sanitary improvement. The income of the councils and boards was Rx. 77,084, of which the bulk was yielded by local rates, the main items of their expenditure were Rx. 31,613 on roads and other works, Rx. 24,783 on schools, and Rx. 6,434 on hospitals and vaccination.

Assam. In Assam there are 19 local boards, constituted under the Assam Local Rates Regulation of 1879. They enjoyed for the year 1892–93 an income of Rx. 115,792, and spent Rx. 90,214; 68 per cent. of the total expenditure was devoted to public works and 18¼ per cent. to education.

Madras. In Madras there are 21 district boards, with not less than 24 members on each, of whom one-half are elected by the taluk or subdivisional boards. The members of 86 taluk boards are appointed by Government from the residents and ratepayers of the taluk. On all the boards there were 1,792 members, of whom 1,243 were non-officials and 549 were officials; out of the latter number 72 were members elected by taluk boards to be their representatives on the district boards. Below the taluk boards were 320 village unions, which were occupied chiefly with local sanitation and the management of elementary schools, markets, and other local institutions, entrusted to them by the taluk boards. The district boards held 236 meetings, at which the average attendance was 15 (10 non-officials and five officials), out of an average strength of 31 members. The taluk boards held 1,177 meetings, at which the average attendance was seven members (five non-officials and two officials) out of an average strength of 14 on each board. The village unions held 4,112 meetings, or 503 more than in the previous year. The local government considered the working of the taluk boards and of the village unions to have been on the whole satisfactory, and considerable attention was paid to sanitation.

The income of all the boards during the year was Rx. 828,263, or Rx. 108,757 more than in the previous year. The chief sources of income were local rates, Rx. 586,277; grants from provincial and other funds, Rx. 89,974; school fees,

fees, Rx. 17,343; endowments and miscellaneous, Rx. 104,238. The expenditure of the year was Rx. 822,993, of which Rx. 385,382 were spent on roads, ferries, and other public works; Rx. 159,907 on medical and sanitary purposes, and Rx. 104,597 on education. Out of the public works outlay, Rx. 94,841 were spent on new roads, bridges, school-houses, &c., and Rx. 290,541 were spent on the maintenance of old works. DISTRICT BOARDS.

The length of new roads made during the year was 216 miles, and of roads kept in repair by local boards, was 20,572 miles. The expenditure on sanitation, as distinguished from hospitals and vaccination, which cost Rx. 46,084, was Rx. 48,249, of which Rx. 13,621 were spent on improving the water supply.

In Bombay there were 23 district and 201 taluk (or subdivisional) boards; all these boards are elective, except in three backward districts, and seven exceptional sub-divisions. On the boards sat 3,430 members, divided thus: Bombay.

Elected - -	1,544	Non-officials	2,709	Asiatics -	3,286
Nominated -	1,877	Officials -	781	Europeans and Eurasians.	204

The total income of the boards was Rx. 442,602, of which more than half accrued from local rates or cesses on land; in addition there were available for spending balances as large in most cases as two thirds of the year's revenue; the total expenditure was Rx. 467,570, the chief items being education and public works. In 10 districts the average attendance at board meetings exceeded 50 per cent. of the members, and in 13 other districts it fell very little short of that proportion. The Bombay Government regarded this result "as satisfactory, seeing that many members live at a considerable distance from the places of meeting." The Commissioners of the northern and southern divisions reported that the administration of the local boards was on the whole satisfactory"; that "there was still great room for improvement"; that "the funds at the disposal of the boards are on the whole economically and usefully administered"; but that "it is difficult to find money for the many needs that arise."

PORT TRUSTS.

The custody of harbours and the administration of harbour and shore affairs are placed by law in the hands of Port Commissioners, who are appointed for each of the chief ports. Members of these Port Trusts are for the most part appointed by the local governments, and are usually representative of the various Indian and commercial interests of the place. Port Trustees are empowered, subject to the control of the Government, to levy dues, to contract loans for port improvements, to do all that may be needed for the maintenance of the harbour and its approaches, and to erect warehouses, jetties, and docks for the convenience of traders and shipping. The local governments, and so far as can be judged, the public, are well satisfied with the work done by the various Port Trusts. The Commissioners of Port Trusts are the only members of local public bodies who receive a small fee for each attendance at meetings for business. No members of municipal councils, or of districts or local boards, receive any fees for the performance of their local duties. PORT TRUSTS.

The Bombay Port Trust had during 1892-93 an income of Rx. 450,000, or Rx. 30,000 less than in the previous year. The decrease was due to the fall in the exports of wheat and some other staples. The chief items of income were wharfage and dock fees Rx. 226,000, ground and warehouse rents Rx. 86,000; all these items showed a decrease compared with 1891-92. The expenditure of the year came to Rx. 465,000, of which the largest items were Rx. 223,000 for interest on and repayment of debt, and Rx. 115,000 outlay on docks; the deficit of Rx. 15,500 was met from the accumulated reserve of Rx. 150,000. The Port Trust debt at the end of the year was Rx. 4,939,000, and the Port Trust had spent up to date, Rx. 5,240,000 on improving and adding to their property. During the year a 4½ per cent. debenture loan of Rx. 616,000 was successfully converted into a 4 per cent. loan; the subscriptions to the new loan were at an average of 100½ per cent. The new graving dock, which cost Rx. 109,000, and had been opened in 1891, received 119 vessels, against 63 in the previous year. Bombay.

PORT TRUSTS.

Calcutta.

The income of the Calcutta Port Trust during the year was Rx. 303,000, and the expenditure was Rx. 283,000, exclusive of the Kidderpore dock account. The new docks were opened in September 1892; they have cost Rx. 2,876,000, which sum has now to be added to the previous Port Trust Debt of Rx. 1,161,000. Only 42 steamers and 19 sailing vessels resorted to the new docks during the year. In order to meet the charges on account of the docks the port duty of 4 annas per ton on all vessels entering the port, which had been abolished in 1884, was re-imposed. It was found that after allowing for this duty, and absorbing the surplus accruing on the old jetties and wharves, there would still be a deficit of Rx. 95,500 in the port finances; and an additional rate of 4 annas per ton was imposed on all goods landed from or shipped into any vessel lying within the limits of the port. It is hoped that this rate will nearly meet the deficit, and that gradually, as more vessels resort to the docks, it may be possible to reduce the rate. Apart from the docks, several departments of the Port Trust felt the effect of the general depression of trade, and made smaller earnings than in the previous year. The number and tonnage of vessels entering and leaving the port was smaller than in the year 1891–92, but greater than in any previous year. Steamers arriving were 844, and sailing vessels 221, with an aggregate tonnage of 2,642,249 tons, against 2,699,567 in the year 1891–92.

Rangoon.

The year 1892–93 showed a further increase of 26,000 tons, or 2 per cent., in the shipping visiting the port of Rangoon; though the tonnage of steamers direct from Europe by the Suez Canal decreased. The revenue of the Port Trust increased 4 per cent. as compared with 1891–92, while the expenditure decreased 8 per cent. The total net charge on account of interest on the port debts was Rx. 2,100; and Rx. 5,200 of debt was paid off during the year. Rx. 28,000 were spent on original works of improvement, among which were extensions of wharves and jetties, reclamation of the strand bank, putting down moorings and erection of storehouses. The scale of pilotage fees and the schedule of rates for use of the jetties were revised during the year. Six accidents to shipping took place during the year in the harbour and approaches; in no case was material damage done.

Madras.

The receipts of the Madras Port Trust were Rx. 51,600, or Rx. 7,200 less than in the preceding year, and the expenditure of the year was Rx. 49,600. Trade was dull, though there were large receipts of grain from the coast ports. The decrease of exports was partly due to the fact that cotton and ground nuts, which used to be exported from Madras, are now being carried by rail to Bombay and Pondicherry for export thence.

A further expenditure of Rx. 25,600 was incurred on the Madras harbour works, against Rx. 65,200 in the previous year; and by the end of the year 1892–93 the total outlay had reached Rx. 1,194,000, against the total sanctioned estimate of Rx. 1,238,000. The work of the year was confined to the pier heads at the ends of the arms of the breakwater.

Karachi.

The income and expenditure of the Karachi Port Trust were respectively Rx. 64,000 and Rx. 49,000, as compared with Rx. 95,000 and Rx. 51,000 in the previous year. There was a large decrease in the export trade; the wheat exportations were 225,000 tons, against 618,000 tons in the previous year, and there was some decrease in the exports of oilseeds and cotton; hides alone showed a considerable increase. The shrinkage of trade was largely due to short harvests. The principal improvements of the year were the extension of one wharf and the deepening of the port entrance and channel, from which 605,000 tons of sand were removed by dredging during the year.

The troopships from England with regiments to or from the North West Frontier or the Punjab brought to, and carried away from, Karachi 31,964 men during the year. The outstanding debt at the end of the year was Rx. 440,000, of which Rx. 200,000 were borrowed for specific works during the year 1892.

There are other minor ports in which smaller sums are raised yearly and expended on improvements. The increase in the value of the total foreign trade of the five principal ports during the past ten years is set forth below:

Madras

Madras alone shows advance as compared with the previous year; Karachi shows a very large decrease. PORT TRUSTS.

NAME OF PORT.	Value of the Total Foreign Trade, in Merchandise only, during the Year			
	1883–84.	1889–90.	1891–92.	1893–94.
	Rx.	Rx.	Rx.	Rx.
Bombay - - - - -	53,257,000	65,748,000	66,352,000	65,674,000
Calcutta - - - - -	57,335,000	63,112,000	63,932,000	63,640,000
Rangoon - - - - -	7,810,000	10,893,000	12,615,000	12,525,000
Madras - - - - -	7,823,000	10,339,000	8,918,000	9,068,000
Karachi - - - - -	5,048,000	8,405,000	11,311,000	7,546,000

STATEMENT showing the Number of Municipalities in India, their Receipts and their Expenditure, for the Year 1892–93.

	Bengal.		North Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.		Bombay.		Minor Provinces.	TOTAL.
	Presidency Corporation.	District Municipalities.						Presidency Corporation.	District Municipalities.	Presidency Corporation.	District Municipalities.		
Number of Municipalities	1	146	103	149	41	56	12	1	55	1	176	10	751
Population according to the census of 1891	681,560	2,731,182	3,154,741	2,014,833	840,167	697,104	75,156	452,518	1,648,449	821,764	2,202,208	243,199	15,052,881
Receipts:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	R	Rx.	Rx.
Octroi	- -	- -	219,848	257,594	- -	73,364	–	4,988	- -	128,975	151,068	26,584	862,421
Other Taxation	393,009	217,537	44,228	18,952	113,213	22,592	8,729	91,392	129,500	436,160	124,414	2,159	1,601,885
Sources other than Taxation (excluding Deposits and Advances).	171,931	69,368	105,420	107,820	189,204	28,448	6,236	29,483	95,364	102,158	115,460	11,724	1,032,616
Loans	- -	5,500	130,036	48,552	13,900	10,000	360	- -	21,529	25,000	80,500	9,530	344,907
TOTAL Rx.	564,940	292,405	499,532	432,918	316,317	134,404	15,325	125,863	246,393	692,293	471,442	49,997	3,841,829
TOTAL (1891-92) Rx.	744,346	271,558	589,218	438,927	288,454	164,652	15,487	105,265	228,595	947,487	402,589	49,941	4,246,519
Expenditure:													
Cost of Collection and Administration	51,688	34,080	43,529	55,838	29,937	31,912	1,736	9,963	19,414	50,393	47,708	7,471	383,669
Public Health and Conveniences	384,705	205,293	362,841	221,521	180,117	96,969	12,122	68,311	174,287	544,814	223,216	31,383	2,505,579
Public Safety	47,896	20,562	53,346	63,208	25,538	1,019	321	5,116	9,505	85,349	23,703	3,894	339,457
Repayment of and Interest on Debt	109,202	2,154	16,586	14,959	20,607	3,859	57	13,326	1,532	173,503	11,739	985	368,509
Miscellaneous	32,807	28,519	56,641	93,369	37,009	19,183	924	9,085	39,338	37,891	90,427	8,564	453,757
TOTAL Rx.	626,298	290,608	532,943	448,895	293,208	152,942	15,160	105,801	244,076	891,950	396,793	52,297	4,050,971
TOTAL (1891-92) Rx.	654,700	268,492	515,575	431,654	320,455	130,945	14,723	110,969	194,071	943,982	409,650	54,888	4,050,104

SANITATION.

SANITATION.

European Troops.

Owing chiefly to the prevalence of influenza and malaria, the general health of the European troops in India during 1892 was not so good as in the previous year. The total admissions into hospital were in the ratio of 1,517 per 1,000 of the average strength of 68,137, against 1,379 in 1891; the daily average sick-rate was 84, or five per 1,000 more, and the death-rate was 17·07, as compared with 15·89. The chief causes of admission were, as usual, venereal diseases and ague, which accounted for 27 and 28 per cent. respectively of the total sickness. Enteric fever was the chief cause of mortality, yielding a death-rate of 5·52 per 1,000, a slight decrease on 5·73, the ratio of the previous year. This fever alone caused 32 per cent. of the total deaths. The liability of young and unacclimatised soldiers to enteric fever is again shown in the year's statistics, for among troops under 25 years of age the death-rate from this disease was 8·44 per 1,000, while among men between the ages of 25 and 29, and between 30 and 34, the mortality equalled 2·92 and 1·65 per 1,000 respectively; and whereas among men of less than two years' service in India the death-rate from enteric fever was 10·69 per 1,000, among men of three to five years' service it was 3·76, and among men of 6 to 10 years' service the rate was 2·15 per 1,000. In his report for the year under notice the Sanitary Commissioner, Dr. Rice, gives, as usual, a number of extracts from the reports of medical officers in stations in which there were outbreaks of the fever during the year; but the officers, he says, "were usually unable, even to their own satisfaction, to trace out in any given outbreak a definite insanitary condition to which the outbreak might, with certainty, be attributed."

Cholera was not so prevalent among the European troops as in 1891; but the disease ranked next to enteric fever in order of mortality, having caused 10 per cent. of the total deaths. The fatal cases decreased from 168, or 2·51 per 1,000 of strength, to 121, or 1·78. Of these, 102, representing a ratio of 2·42 per 1,000, occurred among troops in the Bengal Army, against 114, or 2·78, in the previous year. In the Madras Army there were seven cholera deaths, as compared with 21 in 1891, and the Bombay Army recorded 12 deaths from the disease, against 33.

The loss to the whole European Army in India by invaliding during 1892 amounted to 1,661 men, equal to 24·37 per 1,000 of strength, against 1,793, or 26·78, in 1891. Of the three armies, the proportion of invalids to strength was highest in Madras, viz., 33·05; in the case of Bengal the proportion was 22·57, and in that of Bombay, 21·33. Out of the total number invalided, 40 per cent. were discharged as unfit for further service, being 6 per cent. more than in 1891. As regards the influence of age and length of residence in India upon invaliding, 53·41 per cent. of the number invalided were under 25 years of age, against 54·01 in 1891, while 35 per cent. were of less than two years' service, and 77 per cent. were of less than five years' service. In the European Army, 79 per cent. of the total strength had seen less than five years' Indian service.

Native Troops.

Though there was more sickness in the Native Army of India during 1892, owing to the influence of influenza and malaria, than in the previous year, the mortality was not so high. On an average strength of 127,355 the admissions into hospital were in the ratio of 1,092 per 1,000, against 972; the daily sick-rate was 37, an increase of two per 1,000, and the death-rate was 14·97, against 15·44. Ague continued to rank first among the causes of admission, and yielded 48 per cent. of the total. Respiratory diseases, as usual, were the chief causes of death, and represented a ratio of 4·27 per 1,000 of average strength, against 3·56 in 1891. The death-rates under this head, of all branches of the Army except that of Central India and Rajputana, were higher than in 1891. Pneumonia alone accounted for 415 deaths, or 3·26 per 1,000 of strength. Among Native troops the mortality from this disease was more than five times as high as that among European soldiers. From malarial fevers there were 181 deaths, equal to 1·42 per 1,000. From these two causes, pneumonia and malarial fever, 36 per cent. of the total deaths were recorded. From cholera the death-rate was 2·14 per 1,000, against 2·64 in 1891. Fevers of all kinds

Sanitation.

were the cause of 17 per cent. of the total deaths, while among the European troops 41 per cent. of all the deaths were from fevers. From ague, remittent and simple continued fevers, the deaths among the Native troops yielded a ratio of 2·45 per 1,000. Among the European troops the proportion was only 1·42. On the other hand, the death-rate from enteric fever among the Native troops was only 0·13 per 1,000, as compared with 5·52 among the European troops.

Jails.

The health of the prison population of India during 1892 was not on the whole satisfactory. The ratios of admission into hospital and daily average sick per 1,000 of strength were 1,116·87 and 37·94 respectively, against 978·57 and 33·60 in 1891. The death-rate also rose from 30·19 per 1,000 to 35·94. The average rate of mortality ranged from 58·97 in Assam to 17·16 in Berar. The increase in the death-rate was spread over all the 10 provinces, except Coorg, where the jail death-rate declined from 32·64 per 1,000 to 30·33. Increased mortality was most noticeable in the Central Provinces and Madras Presidency. In the former the jail death-rate rose from 30·37 in 1891 to 44·66, and in the latter, from 35·33 to 45·14. The increase in the general death-rate was mainly due to the prevalence of cholera and bowel complaints, the deaths from which rose respectively from 324 and 738 in 1891 to 510 and 820. Berar and Coorg were the only provinces in which the jails were free from cholera. The proportion of deaths from this disease, per 1,000 of strength, was greatest in the jails of the Madras Presidency.

General population.

Births were registered throughout all the 10 provinces during 1892. In Bengal until the end of 1891 the registration of births was confined to selected towns, and was effected by municipal agency. Since the beginning of 1892 registration has been extended to all towns and rural areas, and the work has been entrusted to the police. The highest mean provincial birth-rates recorded were: in Berar, 39·9 per 1,000 of population; the Central Provinces, 38·39; and the Punjab, 38·16. In the remaining provinces the rates ranged between 36·17 in the North Western Provinces and Oudh and 22·12 in Coorg. Of the 10 provinces, the birth-rates were higher in four than in the previous year, and in the remainder, excepting Bengal, in which no comparison can be made, they were lower. In all but four of the provinces (Bengal, the Punjab, Assam, and Coorg) the birth-rates exceeded the death-rates, the excess per 1,000 varying between 11·1 in Berar and 2·06 in the North Western Provinces and Oudh. The year 1892 was not a healthy one, and the death-rate for all the provinces rose from 28·42 per 1,000 of population in 1891 to 32·48. The highest death-rates were registered in the Punjab, 49·48; in Assam, 34·21; in the Central Provinces, 34·14; and in the North West Provinces and Oudh, 34·11. In the remaining six provinces the rates ranged from 32·50 in Bombay to 20·0 in Lower Burma. The abnormal mortality in the Punjab amounted to about 20 per 1,000, and was attributed to excessive outbreaks of cholera, fever, and influenza.

From all the chief diseases, except dysentery and diarrhœa, more deaths were registered than in 1891. Cholera was the cause of 724,015 deaths in 1892, being in the ratio of 3·39 per 1,000 of population, against 582,430, or 2·81, in the previous year. The increase was spread over all the provinces, except Berar, Madras, and Assam, and the excess was most marked in the Punjab, Bombay, and Lower Burma. A comparison of the cholera mortality in individual provinces since 1877 shows that in Bengal, the Punjab, and Coorg the number of recorded deaths was never so great as in 1892. The highest death-rate from cholera was registered by Assam, viz., 4·29 per 1,000, which, however, was a slight improvement on the rate of the previous year of 4·76. The greatest improvement occurred in Berar, where the cholera death-rate declined from 2·8 in 1891 to 0·7 per 1,000.

From small-pox there were 92,680 deaths, representing a rate of 0·43 per 1,000, against 93,745, or 0·45, in 1891. The decrease, however, was confined to Assam and the North Western Provinces and Oudh, for in all the other provinces the mortality from this disease was greater than in the previous year. But only in Madras Presidency and Coorg did the death-rate exceed one per 1,000, the former having recorded a ratio of 1·75, and the latter of 5·27.

Fevers were more prevalent in all the provinces, excepting the Central Provinces and Berar, than in 1891, and in the combined provinces the total deaths numbered 4,589,496, equal to 21·06 per 1,000 of population, as compared with 3,784,051, or 18·27. This shows an increase in 1892 of 805,445.

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The excess was greatest in the Punjab, where the fever deaths rose from 442,254, or 21·52, to 715,890, or 34·83. The vast majority of these deaths, however, were, it is reported, caused by fevers of malarial origin, and occurred in the last four months of the year. Sanitation.

The total number of deaths returned under dysentery and diarrhœa was 231,427, or 1·07 per 1,000, against 239,953, or 1·15, in 1891. Of the 10 provinces, five shared in the decrease of 10,890, and in the other five the mortality was greater than in 1891.

The total number of successful vaccinations performed during 1892–93 was 6,396,480, being an increase of 513,797 on the previous year's work. 2¼ millions of the total were under one year of age, and about three millions were between the ages of one and six years. The proportion of population protected by the year's operations ranged from 63·80 per 1,000 in Coorg, and 37·0 in Berar, to 20·34 in the North Western Provinces and Oudh, and 19·29 in Upper Burma. In the vaccination of infants the best results were, as usual, obtained from Berar, where 66 per cent. of the children born during the year, estimating the annual births at 40 per 1,000 of population, were protected against small-pox. In three other provinces (Bombay, Central Provinces, and the Punjab) the percentage was over 50, and in the remainder it ranged from 22·5 in the North Western Provinces and Oudh to 11·4 in Bengal. Vaccination.

Some of the important sanitary works which have been either completed, in progress or under consideration, during 1892, were as follows:—In Calcutta progress, was made in the improvement of bustees and in road-making. The construction of two new settling tanks increased the supply of water per head of population to 37 gallons in the town proper, and about 17½ gallons in the added area. Eighteen miles of distribution pipes were also laid, bringing the total up to 285·73 miles, and the total number of premises supplied at the close of the year was 22,831. Improvements continued also to be made in the drainage of the town. During the year a large flushing reservoir, holding 300,000 gallons, was constructed near the Bhawanipur Pumping Station, and provision has been made in the Loans Budget for 1893–94 for a large extension of the flushing system. Much, however, still remains to be done in the added area, where it is reported there are some 200 miles of open drains which can be adapted and used for surface drainage. This matter was receiving the careful attention of the Commissioners. The municipalities of the interior of Bengal spent Rx. 147,871 on sanitation, being an increase of Rx. 14,114 on the sum expended in the previous year. In improving town and rural areas the local bodies spent Rx. 33,466, and a further sum of Rx. 31,947 was contributed by private individuals, the most important work being the construction of waterworks at Nasirabad by Raja Surya Kanto Acharji Bahadur, at a cost of Rx. 14,276. The Bengal Sanitary Board was not able to hold more than one meeting during the year, owing to the frequent absence of some of the members on tour. Among the more important matters which came under their consideration were the drainage and water-supply of the town of Pabna, and the drainage of the towns of Dinajpur and Jamalpur. Several projects for water-supply and drainage proposed by Municipal Commissioners and District Boards were also submitted to the Sanitary Board; in fact they became so numerous that the Lieutenant Governor found it necessary to define the duties of the Board with regard to the preparation of such projects, and precise instructions on the subject were issued. In the North Western Provinces and Oudh the Benares waterworks were completed, and opened on the 18th November by the Lieutenant Governor; water-supply projects for Cawnpore and Lucknow were sanctioned and their construction put in hand; minor waterworks were completed at Haldwani and Naini Tal, and others were either in progress or under consideration. At Naini Tal the drainage and sewerage scheme was nearly completed, and a similar project was sanctioned for Benares; the Kali Barhganga drainage scheme was completed. The question of the reconstitution of the Sanitary Board was before the Local Government during the year, but at its close final orders had not been issued. The more urgent projects for the relief of obstructed drainage in certain tracts has for some time past been under the consideration of the Board, and the question of carrying into effect the Village Sanitation Act (Act II. of 1892) has been referred to them. In the Punjab, the Delhi and Abbottabad waterworks were completed, Sanitation.

SANITATION.

and the former was formally opened by the Lieutenant Governor in November of the year under notice; rapid progress was being made in the extension of the waterworks at Simla, and in the execution of those for the town and cantonment of Kohat, while in several other cities works of a similar character were either in progress or under consideration. The intramural drainage works at Gujranwala were approaching completion, the drainage scheme at Kohat was finished, and the drainage of Peshawar was greatly improved. The Sanitary Board held six meetings, when they considered and recommended the adoption of improvement in the rules for the collection of vital statistics, which the Local Government ultimately approved. Acting on the suggestion made by the Army Sanitary Commission, the Board recommended to the Government the appointment of a first-class executive or superintending engineer to their body. In Burma no sanitary works of any magnitude were undertaken, but much activity is said to have been displayed throughout the larger towns of the province in the matter of conservancy. The Shone and Ault sewerage system in Rangoon worked satisfactorily during the year, and 587 new house connections were made, bringing the total up to 1,180. "It is gratifying to find," the Sanitary Commissioner states, "that as the houses become connected with the sewerage system, the death-rate in areas which are served by this means steadily declines." The Municipal Committee now propose to borrow seven lakhs of rupees for increasing the pressure on the water-supply of the town, the present pressure being inadequate. Another important measure for the welfare of Rangoon is the scheme for the reclamation of the low-lying lands in the east of the town, which has received the sanction of the Government of India. The work of the Burma Sanitary Board consisted mainly in considering the survey of selected towns. In the Central Provinces the most important sanitary works completed or under consideration were the following:—The Raipur waterworks were opened on the 30th December with excellent results, and a scheme on the same lines was sanctioned for Rajnandgaon, at a cost of Rx. 18,936. In several towns the water-supply was improved, and in others water and drainage surveys were either completed or being carried out. The Sanitary Board was chiefly occupied with village sanitation. In many villages the water-supply and drainage were improved, and the sites of others cleansed, under the direction of the Board. In Assam no sanitary work of special importance was carried out during the year, but much attention was given to general sanitary improvements. The Sanitary Board had under their consideration the improvement of the water-supply of villages, and particularly village conservancy. In the Madras Presidency the sanitary works undertaken and carried out during 1892 consisted chiefly in the sinking and repairing of wells, construction and repairing of tanks, and other minor improvements. The municipalities set apart 60 per cent. of their total income for sanitary work, and the District Boards 8 per cent. In the Sanitary Engineering Department considerable progress was made. Nine water-supply and drainage works, estimated to cost Rx. 146,100, were in course of construction, while schemes for the improvement of water supply in five towns and of drainage in another, estimated to cost about Rx. 214,800, were submitted to the Government. In addition to other work, the Department also sanctioned 165 plans and 202 estimates for sanitary works, of the value of Rx. 21,771, and furnished plans and designs wherever necessary. In Madras city the question of improving the water-supply and drainage was still engaging the attention of the Municipal Commissioners. A considerable sum was expended on the conservancy of the city. In the Bombay Presidency several water-supply and drainage projects were in progress. The Ahmedabad waterworks, which were opened in the previous year, proved eminently successful, as did also the drainage project, so far as completed. Arrangements were being made for supplying the city of Surat with water from wells, or galleries, sunk near the river at Warucha. The waterworks at Hubli and Dhulia were nearing completion, and the plans and estimates for those at Dharwar were finally approved. Besides these, a large number of works for the improvement of the water-supply of the smaller municipal towns were completed or in progress. The Sanitary Board entered on their duties in January, and among the more important of their transactions were projects for the water-supply of several towns, and improvements in this respect in others. The expenditure of the Health Department of the city of Bombay on sanitary measures during the year was Rx. 117,552. The daily quantity of water was increased

increased from 16½ to 29 gallons by the introduction of the Tansa supply. Various improvements were made in the drainage of the city. The sewerage of Colaba division on the Shone system, at a cost of Rx. 70,961, was sanctioned by the Corporation just before the close of the year. In Berar the municipalities spent over 60 per cent. of their income upon sanitary work. Great attention was paid to conservancy, and good progress was made in improving the Akola water-supply at Kapsi. A complete system of drainage for the city of Amraoti was considered, and will be taken in hand as soon as funds are available. Excluding municipalities, the expenditure on sanitary improvements in Berar amounted to Rx. 14,857, principally incurred on village conservancy and minor improvements. The District Sanitary Boards were chiefly occupied in projects for improving the sanitary state of villages. Village Sanitary Boards do not appear, so far, to have proved very active in Berar. SANITATION.

III.

CRIME AND POLICE, CRIMINAL JUSTICE, JAILS AND CIVIL JUSTICE.

CRIME AND POLICE.

CRIME AND POLICE.

THE organisation of the Indian Police underwent no material change in the year under review. Towards the close of the year, however, a proposal made by the Government of India to recruit a portion of the Assistant Superintendents by a competitive examination to be held in London, was approved by the Secretary of State.

Efforts were made to obtain better recruits for the subordinate ranks by offering improved pay and prospects; and schemes to provide these were sanctioned or were under consideration in almost every Province. Schools for the instruction of constables and subordinate officers had been opened in some of the Provinces, and trained reserves of armed police were being organised at the headquarters of many districts for the maintenance of order, and to avoid too frequent resource to the military. Energetic action had been taken by the Governments of the North-West and Central Provinces, acting in co-operation with the Central Indian States, to suppress the gangs of dacoits by which their frontiers had long been harassed.

Detailed statements will be found in the Statistical Abstract relating to British India, showing (1) particulars of the strength, cost, &c., of the police, and (2) the numbers of the principal offences reported to have been committed in each Province.

Much attention was paid by the Provincial authorities to measures for the prevention of crime, such as the registration of bad characters and patrolling by the police.

In considering the numbers of reported crimes in each Province, it should be borne in mind that on the average at least 6 per cent. of these are declared by the magistrates never to have occurred, and far more are found by the police either never to have occurred, or to be of too petty a character to call for action.

Bengal.

There was in Bengal during the year under review the heaviest outbreak of serious crime that has occurred for many years; it is attributed to the high prices of food resulting from deficient crops. The number of reported cognizable offences (*i.e.* offences for which a police officer may arrest without warrant, and which are, speaking generally, grave offences against property, the person or the State) rose from 128,472 in 1891 to 146,185; while the number of persons brought to trial for such offences rose from 206,925 to 221,456, of whom 137,515 were convicted, as compared with 123,961 in the previous year.

There was also an increase of 2,553 in the number of non-cognizable offences; *i.e.* minor offences, on account of which the police are not empowered to arrest.

The value of property stolen rose from Rx. 131,313 in 1891 to Rx. 147,117, of which only 18·9 per cent. was recovered, as compared with 21·1 per cent. in the former year.

The actual strength of the regular police force (exclusive of the railway police which numbers about 600 of all ranks) at the close of the year was 74 superior officers with 22,295 subordinates, and the cost amounted to Rx. 430,371, an increase of Rx. 7,752 over that for 1891. Their conduct continues to show a satisfactory improvement, but the number of educated subordinate officers and men slightly decreased.

The village or rural police numbered 169,081, and cost Rx. 674,890. Their conduct was still very indifferent, and whereas only ·8 per cent. were rewarded for good work, 11·9 per cent. were punished for misbehaviour.

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In the North-West Provinces and Oudh there was a striking diminution in the volume of crime, which is attributed partly to the favourable season, and partly to the vigorous action taken against the criminal classes in previous years; but the serious offence of dacoity (robbery by five or more persons) increased materially; and in this, as well as in the other more heinous crimes, the proportion of undetected cases continued to grow. Active measures were taken in the districts infested by the dacoits during the year, which resulted in breaking up several gangs. Reports of cognizable offences decreased by 30,734 as compared with 1891. Property valued at Rx. 181,456 was stolen during the year, of which 31 per cent. was recovered; and 91,689 persons were made amenable to justice, of whom 68,838 were convicted. CRIME AND POLICE. North-West Provinces and Oudh.

Non-cognizable offences also decreased by 6,129. For such offences process issued against 139,781 persons, of whom 44,700 were convicted.

The sanctioned strength of the regular police was 23,531 of all ranks, and its cost Rx. 478,484. The quality of the force continued to be indifferent, and the standard of education low, but good results were expected from the improvement of its prospects and the institution of training schools.

The rural police numbered 90,086, and cost Rx. 292,098. There was a marked decrease in the number of punishments inflicted on village policemen.

There was a diminution of serious crime in the Punjab in 1892, although the number of murders committed in the Peshawar district was unusually large. In cognizable crime the figures show an increase of 2,155 cases, as compared with 1891, but the increase is more than accounted for by the larger number of cases under special laws, relating to Forests, Excise, Sanitation, &c. During the year 82,306 persons were brought to trial, of whom 52,507 were convicted. Process issued in 45,868 non-cognizable cases, and 28,419 persons were convicted. The value of property stolen was estimated at Rx. 103,986, of which about 38 per cent. was recovered. Punjab.

The strength of the police force was 20,543 officers and men, and it cost Rx. 338,583. Its conduct during the year showed considerable improvement. A school of instruction was established early in the year at Phillour, which was doing good, and the number of educated constables had increased.

The Burma Police is organised in two branches, Military and Civil. Burma.

In Lower Burma the strength of the Military branch was increased during the year by 1,995 officers and men, and steps were taken to improve the quality and organisation of the force, which numbered at the close of the year 3,449 of all ranks, organised in two complete battalions with one detached company, and composed mainly of Sikhs, Jats, Punjabis and Gurkhas from India, and indigenous Karens. Its cost for the year (exclusive of hospital charges and rations) was Rx. 64,960.

The Civil Police was reduced at the same time from 8,485 of all ranks to 6,165, and its cost by Rx. 30,843. Training schools were being established at the headquarters of each district, and care was being taken that each man should be taught his duties. Village police were also being organised throughout Lower Burma by the resuscitation of the old indigenous system.

There was an increase during the year in crimes of violence, though cognizable crime in general showed a decrease; 32,186 cognizable cases were reported, with the result that 41,772 persons were brought to trial, of whom 27,617 were convicted. Process also issued in 11,339 non-cognizable cases, and 10,088 persons were convicted. Property valued at Rx. 92,827 was stolen, of which 35 per cent. was recovered.

In Upper Burma a large reduction was effected in the Military Police, two battalions being transferred to the Native Army, and the remaining 12 battalions reduced in the aggregate by 226 men. The cost has thus been reduced from Rx. 464,820 to Rx. 384,227, and the strength from about 15,000 to about 13,200 of all ranks.

CRIME AND POLICE. An addition was made to the Civil Police during the year of 14 officers and 350 men, and the force was thus brought up to a strength of 8,264 of all ranks, costing Rx. 172,071.

The returns of violent crimes show a marked diminution, and the pacification of the country made satisfactory progress; 13,339 cognizable cases were reported, and of 16,231 persons brought to trial, 11,053 were convicted. Process issued also in 3,334 non-cognizable cases, in respect of which 2,434 persons were convicted. Property was stolen to the value of Rx. 43,299, of which only 19 per cent. was recovered.

Central Provinces. Cholera was rife in certain districts of the Central Provinces during the year, and the consequent state of confusion resulted in a large number of petty thefts, which raised the total of cognizable offences reported to 24,282 as compared with 23,595 in 1891. The completion of the Kutni-Bilaspur branch railway also led to an influx of professional criminals, and the organisation of a railway police force had to be undertaken. There was a falling off in the detective success of the police in cases of robbery, the percentage of convictions to persons arrested having fallen from 77·87 to 75·29 per cent., and the proportion of stolen property recovered from 34 to 33 per cent. On the other hand two notorious gangs of dacoits were broken up in the Saugor District in the course of the year. Process issued in 9,532 non-cognizable cases, and led to the conviction of 6,584 persons.

The total strength of the police force was 8,574 of all ranks, and its cost Rx. 150,880. Its conduct and relations with the public were satisfactory.

Assam. The Assam Police is, like the Burma Police, divided into two branches, Military and Civil. The Military branch is organised in four battalions and a detached company, having a total strength of 2,556 of all ranks, and costing Rx. 70,152. The Surma Valley battalions did excellent service during the year in operations in the Lushai Hills; and the whole force is reported to have been in a high state of efficiency.

The Civil Police numbered 2,118 of all ranks, and cost Rx. 42,511. Besides these there were in this Province rural police numbering 6,812, and costing Rx. 29,396. The material of which the subordinate police are composed is not good, and can only be improved by an offer of better pay and prospects, which is not possible in the present state of the provincial finances.

There was a small decrease during the year in reported cognizable crime (from 10,441 to 10,301 cases), and 10,512 persons were brought to trial for such offences, 6,424 being convicted. In non-cognizable cases process issued against 10,931 persons, of whom 7,028 were convicted. The value of property stolen during the year is estimated at Rx. 12,952, of which about 32 per cent. was recovered.

Berar. In the Berar Districts the police do not appear to work very efficiently, and there has been an increase of cognizable crime. The total number of such cases reported was 9,151, and 8,649 persons were brought to trial, of whom 5,592 were convicted. Property was stolen to the value of Rx. 23,976, of which 27 per cent. was recovered. Process issued in 7,265 non-cognizable cases against 14,882 persons, of whom 3,696 were convicted.

Madras. The increase of crime in Madras, consequent on scarcity and the high prices of food-grains, was even more marked in 1892 than in the preceding year, and, as might be expected, occurs chiefly under the head of thefts. The general proportion of cases detected (47 per cent.) is the highest that has been achieved during the last 10 years, but out of 383 murders only 105 were detected, and out of 339 reported dacoities only 121. Under the head of cognizable crime 154,239 cases were reported, 190,675 persons were made amenable to justice, and 119,274 were convicted; property valued at Rx. 143,288 was stolen, of which about 22 per cent was recovered. Process issued in 109,083 non-cognizable cases against 205,376 persons, of whom 65,733 were convicted.

The police force comprised 54 superior officers and 22,445 subordinate officers and men, and cost Rx. 414,439. A proposed addition to it had been recommended to the Government of India, and several improvements in its organisation were adopted in the course of the year. The village police numbered

numbered only 166, and cost Rx. 646. Its reorganisation was engaging attention. CRIME AND POLICE.

This year was marked, as regards the Presidency proper of Bombay, by a further reduction in the volume of crime, which is ascribed to the favourable season and to the efficient working of preventive measures. A similar result was obtained in Sind, notwithstanding less favourable circumstances. In Bombay City, however, there was a large increase in the number of burglaries and thefts. The chief feature in the police annals for the year was an outbreak of dacoity in the Central Division, which required special repressive measures. The total number of cognizable offences reported was 46,830, and for these 52,890 persons were brought to trial, of whom 35,859 were convicted. Property valued at Rx. 150,350 was stolen, of which about 45 per cent. was recovered. In respect of non-cognizable offences process issued in 109,820 cases against 179,749 persons, of whom 39,866 were convicted. Bombay.

The total strength of the regular police (including Bombay Town and Sind) is 20,755 officers and men, costing Rx. 381,359. There is, in addition, a system of village police.

The efficiency of the regular force is reported to have been good, except in Sind, where improved pay and prospects were much needed, and a scheme to provide these was under consideration.

CRIMINAL JUSTICE.

A full account of the Criminal Courts in India will be found in the Decennial Reports for the year 1882-83 and for 1891–92. CRIMINAL JUSTICE.

As previously noticed, 1892 was a year of scarcity and high prices in some provinces, which caused a considerable increase in the total number of convictions, principally for theft and similar offences.

A general improvement in the efficiency of the honorary magistrates is a satisfactory feature of the Bengal report. Though their number was less and the number of benches which sat during the year was 216, or two less than in 1891, the number of persons tried by them rose from 53,142 to 59,166, or 26·5 per cent. of the number tried by the magistracy throughout the Province; considerable relief was thus afforded to the stipendiary magistrates. The total number of persons tried by all Courts during the year was 275,050. Of these 228 were Europeans, nearly half of whom were prosecuted under special and local laws. The percentage of convictions to persons tried was 68·4. The most conspicious features in the returns are the increases (1) in the number of offences against property, due to the bad seasons, and (2) in the number of those by, or concerning, public servants. Bengal.

Trial by jury obtains in some Sessions Courts, and these remained unaltered. On and after the 1st November, however, the list of offences to be so tried was altered by the removal of cases of murder and of some other offences, and by the addition of offences relating to marriage. The number of cases so tried was 294, in 264 of which the judge approved or did not dissent from the verdict, while in six he expressed a partial disagreement; 24 cases were referred under Section 304 of the Procedure Code to the High Court, with the result that the verdict was set aside in nine, modified in one, and sustained in six cases, the remainder being undecided at the close of the year.

The number of appeals again shows a large increase. This increase is ascribed in the case of the subordinate Appellate Courts partly to the increased number of appealable sentences passed, but partly also to the withdrawal from these Courts by the Code of 1882 of the power to enhance sentences. Of appeals to the High Court 61·2 were rejected as compared with 51·7 in the previous year. In the Sessions and District Magistrates Courts 31·9 and 15·1 per cent. of appeals were unsuccessful, against 29·8 and 15·9, respectively, in 1891. Of 845 cases received for revision by the High Court, the sentence of the Lower Court was affirmed in 440, reversed in 249, varied in 102, and otherwise disposed of in 54. In the Subordinate Courts 67·1 per cent. of the applications for revision were rejected.

CRIMINAL JUSTICE. North-West Provinces and Oudh.

In the North-West Provinces also an increasing part in the administration of justice was taken by the honorary magistrates in 1892, and one new bench was created. The number of persons tried by all courts during the year was less than in the preceding year by 9,331, the only considerable increase being under the head of offences against special and local laws, and due to increased energy in enforcing sanitary laws in Benares. Of 96 Europeans tried in the North-West Provinces, 44 were convicted. The percentage of convictions fell from 52 to 50·5 per cent. in the North-West Provinces, and from 47·61 to 44·16 in Oudh. The lowness of these percentages is attributed principally to the large number of petty thefts and other trivial offences coming before the lowest class of magistrates. One hundred and fifty-eight trials by jury were held during the year. The judge accepted the verdict in 136 cases, while in 15 he made a reference to the High Court or Judicial Commissioner, with the result that in six of the 10 cases disposed of by the end of the year the verdict was set aside or modified. The appeals and revision cases disposed of by all courts amounted to 25,064; 83 per cent. of the former and 69 per cent. of the latter were unsuccessful in the North-West Provinces, and 67 and 74 per cent. respectively in Oudh. All the sentences of death that came before the Judicial Commissioner in Oudh for confirmation were confirmed; and in the North-West Provinces 73 out of 95 were upheld by the High Court.

Punjab.

In the Punjab honorary magistrates, sitting in benches, dealt with 14,979 accused persons during the year, and sitting singly, with 16,549; but the percentage of convictions in the latter class of cases was only 26. District magistrates exercised their enhanced powers (Sections 30 & 34) in 806 cases, of which 316 were triable by Sessions Courts; 1,062 cases in the frontier districts were tried by Courts of Elders, and resulted in conviction in about 48 per cent. Of the total number of offences found true, 69 per cent. were under the Penal Code, and 31 per cent. under special and local laws. The percentage of convictions was 42, but in Penal Code cases only 28. Eighty-four Europeans were tried, more than half for crimes of violence, and 32 of these 84 were convicted. The number of appealable sentences passed was 65,230, and against about 30 per cent. appeals were presented. About 65 per cent. of the appeals were unsuccessful, the orders appealed against being confirmed. Of the applications made for revision about 76 per cent. were rejected. Of 177 capital sentences passed, 79 were confirmed by the Chief Court, 31 were varied, and 39 reversed; the remainder were not disposed of before the end of the year.

Burma.

In Lower Burma the highest court of appeal is the Special Court, consisting of the Recorder and Judicial Commissioner sitting together. Honorary magistrates did less work in 1892 than in previous years,—especially in Akyab and Henzada, where certain changes had been made in the system. Owing to an increase in the graver forms of crime there was a large increase in every description of punishment awarded except fines and whipping. Death sentences rose from 30 to 49, though no special cause for this large increase is assigned. Under the Penal Code convictions before magistrates were obtained in 49 per cent. of the cases tried, and before Sessions Courts in 60 per cent. Stricter rules regarding the evidence necessary for requiring security for good behaviour caused a large decrease in the number of persons bound over. The number of appeals to subordinate courts was slightly less than in the previous year; 79 per cent. of appeals to the Recorder and the Judicial Commissioner were unsuccessful; and out of 39 appeals to the Special Court, 35 failed.

In Upper Burma the highest court of appeal is the Judicial Commissioner. The number of cases disposed of by honorary magistrates rose from 299 in 1891 to 2,262. The work of the year was generally disposed of in a satisfactory manner. More cases came up for trial than in the previous year, owing to the progress of administration, but the number of the more serious offences declined. There appears to have been some carelessness in the preparation of evidence for the prosecution in cases before magistrates, which resulted in a falling off in the percentage of convictions. There were few appeals to the subordinate courts, and only 29 per cent. of these were successful. Of appeals to the Judicial Commissioner 75 per cent. were unsuccessful.

Satisfactory

Satisfactory work was done in the Central Provinces by honorary magistrates, who disposed of about 30 per cent. of the total number of magistrates' cases. The fall in the proportion of convictions obtained has engaged the attention of the authorities, and steps are being taken to secure the better management of prosecutions. The Courts of Session were somewhat overweighted, and a proposal to increase the number of Sessions Judges was under consideration. The year was normal as regards the total number of cases tried, but offences against property, as already noticed, were unusually numerous. The large majority, however, were not of a heinous nature. Whipping was to a considerable extent substituted in the year under review for short terms of imprisonment, but a more deterrent scale of punishments is reported to be required throughout the province. The number of appeals disposed of by all courts was 2,897, of which 68·9 per cent. were unsuccessful. CRIMINAL JUSTICE. Central Provinces.

The system of employing honorary magistrates received no further development in Assam during 1892. There were no benches, but in most districts some work was done by honorary magistrates sitting singly. The number of Penal Code cases was slightly in excess of that in 1891, chiefly in respect of crimes of violence. The percentage of convictions (62·3) was greater than in any of the preceding five years. Eighteen Europeans (out of 36 tried) were convicted, chiefly of assault; 18 cases were tried by jury, only one of which was referred to the High Court by the judge; appeals were lodged against 31 per cent. of the appealable sentences passed, and 61 per cent. of the appeals failed. The orders of lower courts were upheld on revision in 57·6 per cent. of decided cases, and reversed in only 25·4 per cent. Assam.

The work done by honorary magistrates in Berar (5·9 per cent. of the cases disposed of by magistrates), though slightly less than in 1891, was on the whole satisfactory. The chief shortcoming in the administration of justice was the scanty use of the powers to exact security for good behaviour. Owing to pressure of business in the Sessions Courts, much sessions work had to be disposed of by district magistrates under their enhanced powers. The percentage of convictions was only 39. Of appeals to all courts, 52 per cent. failed; and of sentences revised by superior courts, 48 per cent. were left undisturbed. Berar.

About 4 per cent. of the criminal business in Madras is done by village magistrates, but an increased tendency was shown in the present year towards their displacement by honorary and lower-grade stipendiary magistrates. Owing to the bad season cases under the Penal Code showed a further increase of 8·2 per cent. on the high figures of the previous year. The advance in the percentage of convictions in magistrates' courts, which began in 1889, was still maintained, and reached 43. There was a large increase in the work done by the Sessions Courts; 470 cases were tried by jury, in 93 per cent. of which the judge accepted the verdict. The sentences inflicted by the courts in general showed a tendency towards heavier fines and longer sentences of imprisonment; also towards the more frequent infliction of whipping, especially in the case of juvenile offenders. About 10 per cent. of appealable sentences were appealed against, and about 55 per cent. of the appellants failed. Of sentences revised by superior courts, about 69 per cent. were not interfered with; but, out of 61 capital sentences, only 30 were confirmed by the High Court. Madras.

In Bombay there were, in the Presidency proper, only 67 honorary magistrates, and in Sind, none. Of these magistrates, 41 were distributed into eight benches, the remainder sitting singly. In magistrates' courts the percentage of convictions was rather less than 36, a decrease as compared with 1891. The increase in the number of true cases was due partly to the occurrence of more crimes of violence, but principally to greater activity in enforcing local and special laws. In Sessions Courts the percentage of convictions was 43; while in the High Court, on its original side, it was 82; 38 cases were tried by jury in the High Court, and 174 in Sessions Courts. Of the latter, 10 were referred to the High Court, which set aside the verdict in four cases out of seven heard by the end of the year. There was a small Bombay.

CRIMINAL JUSTICE

a small increase in the number of appeals. In the High Court 80·44 per cent., and in subordinate courts about 66 per cent., were unsuccessful.

In revision, the High Court left the sentence undisturbed in 62 per cent., Sessions Courts in 69 per cent., and District Magistrates' Courts in 77 per cent., of the cases that came before them.

JAILS.

JAILS.

Prisoners of all kinds.

At the beginning of the year 1892 the jail population in British India was 95,616. During the year 437,395 prisoners were admitted, 437,843 were discharged, and the year closed with a jail population of 95,168, the daily average being 96,202. The average daily number of female prisoners was about three per cent. of the whole, but the percentage of females admitted and discharged within the year was about five.

Convicts.

The convict population at the beginning of the year numbered 88,429; 183,684 convicts were received during the year, and 179,732 were discharged. The number of convicts undergoing sentence at the end of the year was 88,570, and the average daily number throughout the year was 88,801. The average proportion of female to male convicts was a little over three per cent. The number of convicts deported to the Andamans, or from Burma to Indian jails, shows a steady decrease, owing to (1) the retention in India of all but life-convicts,

Guarding of prisoners.

and (2) the pacification of Burma. Two serious outbreaks of convicts occurred during the year, at Akola in Berar and at Akyat in Burma, neither being suppressed without some loss of life. The number of prisoners who effected their escape was again high, especially in Madras, where it is ascribed to the removal of fetters from extra-mural gangs; a discretion has now been granted to the jail authorities to order the use of light fetters for such gangs.

Religion and nationality.

The proportions of convicts in each class to the total population of that class were as follows:—Buddhists and Jains, 1·4 per cent.; Native Christians, 1; Muhammadans, ·8; Hindus and Sikhs, ·5; all other classes, ·3.

Age.

By far the greatest number of convicts were from 16 to 40 years of age, viz., 147,394; from 40 to 60 years of age, there were 30,918; over 60 years, 3,144; and under 16 years, 2,232.

Reformatories.

The total number of juveniles in reformatory schools at the end of the year was 1,029, as compared with 926 at the end of the previous year. The working of these institutions was in the main satisfactory, and so were the reports on the lads who had been discharged from them.

Education.

About 80 per cent. of the convicts imprisoned during the year were illiterate, and not quite 3 per cent. could read and write well. The endeavour to educate adult convicts were abandoned, and attempts at education in jails were restricted to such prisoners, under the age of 18, as were not transferred to reformatory schools. These were instructed, not only in reading and writing, but also, where possible, in some simple handicraft.

Employment previous to conviction.

There was a large increase in the number of men engaged in agricultural pursuits who were admitted to prison during the year; the figures relating to other employments are normal. In the case of female convicts, the largest actual increase in the number of admissions occurred amongst married women and widows; the largest proportionate increase amongst those returned as unmarried, although most Indian girls are married at a very early age.

Sentences.

The percentage of convicts admitted for terms not exceeding one month was 37 against 35·77 in 1891; from one to three months, 19·67 against 19·44 in 1891; from three to six months, 17·27 against 17·55 in 1891; from six to 12 months, 12·85 against 13·26 in 1891; from one to two years, 7·40 against 7·97 in 1891; two to five years, 3·62 against 3·61 in 1891; five to 10 years, ·99 (the same as in 1891); and exceeding 10 years, ·05 against ·06 in 1891. That of convicts sentenced to transportation for life was ·49 against ·62 in 1891, and to transportation for a term of years, ·35 against ·43 in 1891. The number sentenced to death was ·31, as compared with ·30 in 1891. The increase, therefore, took place chiefly among prisoners whose sentences did not exceed one month, these being more than one-third of the whole

whole number of convicts; and in the case of 86·79 of the convicts admitted the sentences did not exceed one year. JAILS.

Up to the end of the year the attempts made to secure the recognition of habitual offenders had not led to very encouraging results. In Madras the Bertillon system of anthropometry was being introduced, but had not been brought into working order. In Bombay there was a large increase in the number of prisoners classified as habitual, but it is not clear what system of identification was employed. In Bengal further progress was made in the use of the anthropometrical system, but no reconviction was proved by its help during the year. In the North-Western Provinces and Oudh, the Punjab, and Assam, steps were being taken to introduce the Bertillon system, which had been attended with satisfactory results in Burma. Habitual offenders.

The number of prisoners available for labour averaged 74,244; about 45 per cent. were employed on manufactures, and about 16 per cent. in the preparation of articles for consumption in jails; 5·7 per cent. were employed as prison officers; and the remainder as prison servants, in gardening, on jail repairs, or on outside labour. In connection with the Lucknow jail a dairy was started with good results, and a similar experiment was being tried in Lower Bengal. Jail employments.

There was a large increase of 11 per cent. in the number of recorded offences committed by convicts—from 99,601 in 1891 to 112,857 in 1892. Criminal offences rose about 8 per cent., but the principal increase was in offences relating to work and prison discipline; 576 convicts were sentenced to further punishment by criminal courts, as compared with 528 in the previous year, and punishments by prison officers increased by 13,200. Except in Burma, where some of the jails were very large and the prisoners appear to be more refractory than in other provinces, there was a decrease in the number of punishments by solitary confinement with reduced diet. In the absence of a uniform method of recording jail offences and punishments, no reasonable comparison can be made between the discipline enforced and the punishments awarded in various provinces. This subject was receiving the attention of the Government of India, and a draft Bill for securing some uniformity of system was under consideration. Meanwhile, instructions had been given that all reported offences, however trivial, must be recorded, and this accounts for the marked rise in their number. Prison offences.

There was an increase in the number of convicts who earned remission under the mark system, as compared with the previous year; and, of those released during the year, only 34 had failed to earn remission, one man having earned in the course of a long imprisonment as much as 1,374 days. The maximum gratuity earned by a prisoner discharged during the year was Rs. 28 (as compared with Rs. 50 in 1891); but it is now recognised that what is needed, is not so much a system whereby prisoners may earn a money reward, rather than marks counting towards a substantial remission of sentence, as one securing to indigent prisoners, on their release, a sufficient subsistence allowance to enable them to reach their homes. Mark system.

The gross expenditure on jails rose from Rx. 547,804 in 1891 to Rx. 584,321 in 1892. The largest increase occurs under the head of "Rations," the cost of rations per head having risen from Rs. 25·12 in 1891 to Rs. 27·255. The cost of establishments, which had been Rx. 193,799 in 1891, rose to Rx. 196,168. Steps were being gradually taken to substitute warders for police guards in those provinces where the change had not already taken effect. Hospital charges also increased—principally in Bengal, where they amounted to Rs. 2. 12. 6. per head of the average daily strength. Cost of maintenance.

The total cash earnings of prisoners were less than in the previous year by Rx. 11,990, but from this sum should be deducted about Rx. 1,802 which were earned, but not brought to audit, in the Central Provinces.

The net expenditure on jails was Rx. 459,178, as compared with Rx. 410,671 in 1891, and the net cost per head averaged Rs. 59. 9. 5., being lowest in Burma (Rs. 45. 15. 3.), and highest in the Central Provinces (Rs. 65. 5. 9.), owing to the outstanding earnings above alluded to.

JAILS. Mortality and health.

On the whole, the health of the jail population, which had improved in 1891, fell back considerably in 1892. The admissions into hospital rose from 978·57 per mille in 1891 to 1,116·87; the daily average number of sick from 33·60 to 37·94; and deaths from 30·19 to 35·94. Bowel complaints and cholera were, as usual, the principal causes of death, but fevers were less fatal than in the previous year. In Madras, the Central Provinces, and Burma, the increase in the death-rate is ascribed to the prevalence of cholera. In Bombay, the rise was caused by the abnormal mortality in the jails of Sind, and notably in that at Shikarpur where it exceeded 116 per mille. A proposal to remove this jail to a more healthy situation at Sakkar was under consideration. In Bengal, the high death-rate was attributable to the general unhealthiness of the year and the high price of food-grains, which caused a number of criminals to be admitted in a weakly condition. In the remaining Provinces the death-rate was not abnormally high. The death-rate in jails compared unfavourably with that of the free population in all Provinces, except the North-West Provinces and Oudh, the Punjab, Coorg and Berar, but it should be remembered that, whereas the jail returns are absolutely accurate, the registration of vital statistics among the free population is still very defective.

CIVIL JUSTICE.

CIVIL JUSTICE.

The general system of administration of Civil Justice in both Regulation and Non-Regulation Provinces is fully described in previous reports, and no important alterations were made in the year under review.

Bengal.

For the last 20 years there has been in Bengal a gradual increase of litigation of all kinds, and this has been specially marked in the year under review. The rise in the number of rent-suits (made cognizable by Civil Courts in 1870) was fully maintained in 1892 and accounts for a large part of the total increase. The business of the Civil Courts has also been considerably enhanced by the growing number of "miscellaneous" cases, which often require as much time as regular suits. Existing Courts had for several years been unable to cope with the increasing work, and, as a temporary expedient, many additional munsifs had been employed. After an exhaustive discussion as to the amount of help really required, the judicial staff was permanently augmented in 1892 by the addition of four subordinate judges, and 55 munsifs. Appellate business increased considerably, but not in proportion to original work, a fact which is probably attributable to the extension of the system of summary trial under the Small Cause Court procedure in suits for money or moveables. The accumulation of arrears in many Courts continued to be a difficulty, and a scheme for the improvement of the ministerial establishments was under consideration.

North-West Provinces and Oudh.

In the North-West Provinces the decline in litigation which had been noticed in the previous four years, ceased in 1892, and the number of cases instituted approached very nearly to the figure for 1889. This result is ascribed to the more favourable harvests of the year. In Oudh there was a small decrease as compared with the previous year. A satisfactory feature of the report for the North-West Provinces is that there were only three suits relating to religion and caste; the tendency has been for this class of suit to become rarer every year. Material assistance was afforded to the Civil Courts in Oudh by Honorary Assistant Commissioners, who disposed of 9·6 per cent. of the total number of suits instituted. Both in the North-West Provinces and in Oudh the Courts were somewhat overtasked, and considerable arrears accumulated, especially in appellate business.

Punjab.

In the Punjab the large decrease in the number of suits instituted in 1892 as compared with the average of the previous four years, is ascribed to the prevalence of cholera and fever over large areas, and to the scarcity which existed in some districts. The number of suits referred to arbitration continued to decline—a fact which is variously attributed to the unpopularity of the provisions of the law, to the increased bitterness of feeling engendered by litigation, and to the absence of anything like official pressure or even encouragement. Great improvement has been effected in the distribution

of

of civil business, and land suits are now more largely tried by the lower grade of officers. A satisfactory share of attention was given by Divisional and District Judges to the duty of inspecting subordinate Courts. CIVIL JUSTICE.

In Lower Burma there was a large increase of civil litigation, which was mainly due to the high price of rice in the dry season of 1892, and the consequent rise in the value of land. The result was that the Courts were unable to keep pace with the business. and the number of original cases pending was considerably great erat the end of the year than at its beginning. The increase also extended to appeals, and here the assistance of an additional Sessions Judge for the Pegu and Irrawaddy Division enabled the Appellate Courts to prevent any large accumulation of arrears. The small proportion (51 per cent.) of confirmations on appeal to the Judicial Commissioner does not seem creditable to the lower Courts. Burma.

In Upper Burma the number of suits instituted continued to increase, especially suits between former and present occupiers in respect of land in the drier districts, which had greatly risen in value. The same thing had been observed in Lower Burma, when the delta of the Irrawaddy began to be opened up to supply rice for the export trade. The percentage of confirmations by the Judicial Commissioner on appeal was no better than in Lower Burma.

In the Central Provinces the year 1891 had been an exceptional one in respect of the small number of suits instituted, but in 1892 the number exceeded the average of the previous seven years. The increase occurred in suits of all values, except in those under Rs. 10, but is particularly noticeable in the more valuable classes. The reasons assigned for these changes are (1) the growth of trade and rise in standard of expenditure; and (2) the wider recognition by creditors of the trouble and expense involved in enforcing petty claims. The number of appeals was normal, and a considerable portion of this class of business was transferred from the Deputy Commissioners to newly-established Courts of Judges. The results of the disposal of appeals do not indicate any material variation from 1891. There was some slackness of supervision over subordinate Courts by Deputy Commissioners. Central Provinces.

The number of civil suits instituted in Assam in 1892 was slightly greater than in 1891, but both these years show a considerable decline as compared with the eight preceding years. As in Bengal, however, the number of rent-suits increased, and there were also more suits involving disputes as to title. In Sylhet the number of original suits was smaller than in 1891, owing partly to an outbreak of cholera and failure of the crops, and partly to settlement operations. The average value of suits for money was Rs. 84·4, of rent-suits, Rs. 25·4, and of title and other suits Rs. 681·6, as compared with Rs. 96·4, 50·4, and 131·1, respectively, in 1891. The decrease in the value of the suits occurred in the Assam Valley and Cachar districts, but the returns from Sylhet account for the large increase as regards suits involving title, several suits of an unusually high value having been brought under the Jhum Regulation. Compared with the returns for 1891, the result of appeals was very favourable to Courts of First Instance in Sylhet, where the percentage of decisions upheld was 80·8; in Cachar it was 63·6, and in the Assam Valley Districts, 58·8. Assam.

The volume of work which came before the Civil Courts in the Hyderabad Assigned Districts in 1892 was unusually large, and about 88·7 per cent. of the whole number of cases were disposed of within the year, or nearly 5,000 more than in the previous year. The Judicial Staff was nominally stronger by three Assistant Commissioners than in 1891, but the officers newly added were unable to give much assistance during the year. There was nothing special in the character of the litigation, which related chiefly to small loans for agricultural purposes. Nearly 75 per cent. of the cases which came to a hearing were disposed of without a contest. The result of appeals was, on the whole, creditable to the lower Courts, about 73 per cent. of their decisions being confirmed. Berar.

In Madras four important changes in the judicial administration were effected during the year, viz.:—(1) The establishment of the Madras City Civil Court; (2) the permanent addition of six District Munsifs' Courts; (3) a regrading of the staff of district munsifs; and (4) the opening of the Madras.

CIVIL JUSTICE.

new Law Courts at Madras. The amount of civil original litigation reached the highest figure it has ever attained in every class of Court except the Cantonment Courts of Small Causes, and the Revenue and District Courts. Varying, and in some respects conflicting, reasons are given for this increase, but it is probable that it is connected with the falling off in 1891 for the first time since 1887, and that many suits which might have been filed in that year were held over till the present year. A similar result is shown in the figures relating to appellate litigation. A satisfactory increase is shown in the work disposed of by all classes of Courts, except District Courts in which pressure of criminal business caused a slight falling off. In the High Court a continuance of the growth of the original work, and a decline in the appellate work, are the salient features of the year's report. In about 65 per cent. of the appeals preferred during the year the decisions of the lower Courts were affirmed.

Bombay.

In the Presidency proper there was a large increase in the number of suits instituted in 1892 as compared with the previous year, and it was distributed amongst all classes of tribunals except the District Courts. In Khandesh, where the rise was most remarkable, it is attributed partly to a good outturn of the crops and partly to the apprehension on the part of the money-lenders that the Dekkhan Agriculturists Relief Act would be extended to that district. In Sind there was a decrease in litigation. Though a larger amount of work was disposed of by all Courts in the Presidency than in the previous year, the arrears were heavier at the close of the year. The number of appeals was slightly in excess of those in 1891.

Two subordinate Judges were added during the year to the staff employed under the Dekkhan Agriculturists Relief Act, and there was a substantial increase in the number of proceedings under that Act as compared with 1891, in which, however, abnormally few cases were instituted. About 51 per cent. of the cases concerned agriculturists only. The report of the Commission appointed to inquire into the working of this Act was submitted to the Government of India during 1892.

LV.

REGISTRATION.

REGISTRATION. General.

In a previous Statement was given a short account of the Registration law. It will suffice to say here that the law makes compulsory the registration of all non-testamentary documents affecting immovable property of the value of Rx. 10 or upwards, while it permits the optional registration of other documents. Officers are established in every district for the registration of documents and for keeping copies of such documents. *Ad valorem* fees are charged for registration, and a small fixed fee for searching the records. At the end of 1892–93 there were in the British India 1,899 registration offices; the total number of documents registered during the year was 2,739,510, or twenty-four per cent. more than in 1890-91. The total registration fee receipts of the year 1892–93 were Rx. 430,064, as compared with Rx. 398,000 in the preceding year; and the cost of the registration offices was Rx. 213,116, leaving a surplus after allowing for refunds of Rx. 225,550 against Rx. 190,000 in the year 1891–92. It is claimed for the Indian registration system that it operates to prevent fraud, as well as to secure and simplify titles.

Bengal.

The number of registration offices in Bengal increased from 333 to 346. The total number of documents registered was 1,102,321, against 988,463 in 1891–92. The increase occurred under documents of which registration is optional, as well under those for which it is compulsory; 85 per cent. of all the documents brought for registration related to immovable property. The number of registered transfers of holding by ryots (tenants), paying at fixed rates or enjoying occupancy right, rose from 88,337 in 1887–88, and 141,296 in 1891–92, to 168,999 in 1892-93; the transfer was made in 101,220 cases to other ryots, in 24,016 to traders or money-lenders, and in 4,473 cases to landords of the land transferred. The average area of a fixed rent holding was 1·9 acres, with a price equal to 13·9 times the rental; while the average occupancy right holding had an area of 1·7 acres, and fetched 13½ years' purchase of the rental; the average area is smaller and the price higher in each case than in the year 1891–92. The number of ceremonies registered under the Muhammadan Marriage Act rose from 10,176 to 12,175, the highest number since the law was passed. The Act is in force in 19 districts, as compared with 14 districts in the years 1876–91. The total fee receipts from all registrations were Rx. 143,500, or 7 per cent. larger than in the previous year; the expenditure increased from Rx. 68,400 to Rx. 72,600; and the surplus increased by Rx. 5,900 to Rx. 70,800.

North-West Provinces and Oudh.

The total number of documents registered in the year 1892–93 in the North-West Provinces and Oudh was 207,162, which showed a decrease of 798, or ⅓ per cent., in the number of documents registered as compared with the previous year. The decrease occurred entirely under documents for which registration was optional. The number of registration offices open in the combined Provinces at the end of the year was 339, against 343 in the previous year; 233 out of the 309 sub-registrars are either special officers or non-officials. In large towns there is clear ground for thinking that the special officers serve the public better than *ex-officio* registrars, who perform registration duties in addition to their other work; but in smaller places remote from supervision where sub-divisional officers are less busy and the work is less heavy, the superiority of the special registrars is less clear. In Oudh where all sub-registrars are special officers registration is less popular and less efficiently done than in the Nort-West Provinces. There was an increase of 2 per cent. in the registration receipts as compared with 1891–92. The surplus of receipts over expenditure was Rx. 19,000, compared with Rx. 19,600 in the previous year. The number of mortages registered showed an increase of 3 per cent. as compared with the last three years; the number of leases declined 6 per cent. during the same period; sales of land increased 7 per cent., and the total number of wills registered in the year fell from 32 to 22. The number of documents relating to movable property for which registration was optional, was, during

REGISTRATION. during the past three years, 48,722, 46,616 and 46,538 respectively. The total value of the property regarding which documents were registered during the year was Rx. 9,089,000, or Rx. 473,000 more than in the previous year. Prosecutions for breach of the registration law rose from two to eight.

Punjab. The number of registration offices was 258, or 14 more than at the end of the previous year. The total number of documents registered in the Punjab was 127,146, or 22 per cent. above the previous year's total, while the fee receipts increased by 27 per cent., and the surplus of the Department by 35 per cent. The increase of business was chiefly due to decisions of the courts to the effect that titles to immovable property are liable to be insecure without registration; the number of optional registrations was about one quarter of the total. The chief increase in the year's registrations was under the head of mortgages of land, which rose in one year from 55,053 to 76,410. Even now the registered transfers of land are less than half the number of transfers shown in the returns of the Revenue Department. The total value of property to which registered documents related was Rx. 4,981,000, or Rx. 643,000 more than in the preceding year. The registration receipts rose to Rx. 32,339, and the surplus to Rx. 21,182.

Burma. The number of registration offices in Lower Burma rose to 120, three new offices having been opened during the year; and the number of registrations increased from 10,822 in 1889–90 to 17,369. The aggregate value of all property registered was Rx. 2,178,000, or 43 per cent. larger than in 1891–92. The fee receipts rose from Rx. 4,027 in the previous year to Rx. 5,475. The surplus of receipts over expenditure was Rx. 2,215 against Rx. 1,190 in the previous year.

Twenty registration offices were open in Upper Burma, four having been added during the year; 2,402 documents were registered, or 303 more than in the previous year. As yet the provisions of the law are imperfectly known in Upper Burma outside Mandalay and a few marts on the Irrawaddy.

Central Provinces. The number of registration offices was 86, against 84 in the previous year, and the number of documents registered during the year in the Central Provinces was 31,103, or 4½ per cent. more than in the preceding year. The increase was proportionately the same under compulsory and optional registrations. The value of the property concerned was Rx. 1,025,000. Of the documents registered 75 per cent. were of classes for which registration is compulsory. The cost of the Registration Department was 43 per cent. of the receipts, and the net revenue was Rx. 6,371, as compared with Rx. 6,814 in the preceding year.

Assam. In Assam there were 24 registration offices, of which three were opened during the year; 30,993 documents were registered, or 295 more than the total of the preceding year; 78 per cent. were compulsory registrations, a slightly smaller proportion than in 1891. The value of the property registered rose to Rx. 425,000 from Rx. 415,000 in the previous year. The fee receipts were Rx. 4,429, and the expenditure was Rx. 2,420, leaving a surplus of Rx. 2,009, which is larger than the surplus in any preceding year.

The marriages registered under the Muhammadan Marriage Act were 317, as compared with 592 in the preceding year; the number of these marriage registrations in Assam has been decreasing rapidly during the past two years.

Berar. The number of registration offices in Berar was 63, as at the end of the previous year; the number of documents registered was 31,162, or 8 per cent. more than in the previous year, but slightly fewer than in 1889–90, in which year there had been a sudden and abnormal increase of 12 per cent. The value of the property registered was Rx. 921,000, or 15 per cent. larger than in the previous year; the fee receipts increased 7 per cent. but the expenditure rose 25 per cent., and the surplus decreased 15 per cent. The increase of expenditure, and consequent diminution of the surplus, were due to the substitution of special paid sub-registrars for several of the *ex-officio* sub-registrars.

Madras. Ten new registration offices were opened in Madras, bringing up the total to 398. The number of documents registered was 873,161, showing an increase of 8 per cent. over the previous year. The increase was 11 per cent. in documents of which registration was compulsory, and 5 per cent. in optional

optional registrations. The total value of the property concerned in all the registrations was 17¾ millions, against 15¾ million Rx. in the preceding year. The registration receipts were Rx. 131,478; the expenditure was Rx. 83,316, and the surplus was Rx. 48,162, or 36 per cent. more than in the previous year. The ratio of increase was larger under compulsory than under optional registrations. The number of documents of which registrations was refused rose from 2,042 to 2,090. In Madras, registrations are, with reference to the population, twice as numerous as in Bengal, and four times as numerous as in the North-West Provinces. The Registrar General, an accomplished Hindoo gentlemen, has subjected the registration results of Madras during the past 12 years to a detailed review. He considers that the registration statistics show that the demand for land is increasing rather than declining; that the price of land is rising, especially in the irrigated districts and in tracts into which railways have recently penetrated; that the rate of interest on borrowed money is slowing falling; that petty landholders are less dependent than formerly on professional money-lenders; that loans between one agriculturist and another are more common than they were; that the transactions of mutual credit societies composed of villagers are extending in three or four districts; and that the ownership of land is not passing from the agricultural to the non-agricultural classes to any injurious extent. REGISTRATION.

The number of registry offices in Bombay was 245, or the same as in the previous year. The number of registrations was 177,170, or 5 per cent. larger than in 1891–92. The increase took place mainly under compulsory registrations. The value of the property affected was Rx. 8,870,000. The fee receipts were Rx. 51,288. The registration surplus of the year, under all heads, was Rx. 24,843, as compared with Rx. 21,718 in the year 1891–92. Bombay.

Under the special law for the protection of Dekkhan agriculturists in the four districts of Poona, Sattara, Ahmadnagar, and Sholapur, there were 137,521 registrations, or 8 per cent. above the total of the previous year. Of the registered sales, leases, and mortgages of land, 46 per cent., or almost the same proportion as in the previous year, were between agriculturists on both sides, and 54 per cent. between agriculturists and money-lenders. The aggregate value of property concerned in these special registrations was Rx. 702,000, or 8 per cent. more than in the previous year. There was an increase in the fee receipts; and the net deficit on these registration proceedings was Rx. 791, as compared with Rx. 1,181 in the preceding year, and over Rx. 1,600 in earlier years.

JOINT STOCK COMPANIES.

During the year 1892–93, for all Provinces of India, the number of new joint stock companies registered was 71, with a nominal capital of Rx. 3,602,000; and at the end of the year there were in operation 956 companies, with a nominal capital of Rx. 35,372,000, and a paid-up capital of Rx. 26,585,000. Sixty-nine companies ceased to work during the year. The total paid-up capital of all surviving companies had increased by about Rx. 2,000,000 in the two years 1891–93. The companies work chiefly in the Provinces of Bengal and Bombay; in no other Province did the aggregate paid-up capital of registered companies reach two millions. The distribution of paid-up capital among registered companies for different classes of industry was somewhat as follows:— JOINT STOCK COMPANIES.

	Rx. of Paid-up Capital		Rx. of Paid-up Capital.
Banking and insurance -	3,829,000	Mills and presses -	12,285,000
Trading and shipping -	3,825,000	Tea and planting -	3,770,000
Mining and quarrying -	1,161,000		
Brewery companies - -	169,000	Miscellaneous - -	936,000

The companies with the largest aggregate subscribed capital, Rx 12,285,000, were for weaving and spinning or for pressing cotton, jute, wool and silk, and more

JOINT STOCK COMPANIES.

more than two-thirds of the capital of such undertakings belonged to the Bombay Presidency. The capital invested in mills increased by less than one per cent. during the year, and the capital in mining increased by $2\frac{3}{4}$ per cent.; capital invested in tea showed a small decrease; and on the whole there was hardly any expansion of joint-stock enterprise during the year.

Bengal.

In Bengal, 20 new companies were registered, with a nominal capital of Rx. 393,000. Nineteen companies, with a total nominal capital of Rx. 1,124,000, ceased to work. At the end of the year 1892–93 there were 325 registered joint-stock companies at work with a paid-up capital of Rx. 11,910,000.

Bombay.

In Bombay, 20 new companies were registered, with a nominal capital of Rx. 448,000. Thirteen companies went into liquidation, with a registered capital of Rx. 466,000. At the end of the year 233 joint-stock companies were in existence, with a paid-up capital of Rx. 10,674,000. Of these, 148 companies, with a paid-up capital of Rx. 8,289,000, were working cotton mills and presses.

V.

FINANCE.

[*The denomination* Rx. *means tens of rupees.*]

THE gross revenue and expenditure of British India in 1892–93 may be thus compared with the figures for 1891–92 :—

	1891–92.	1892–93.	Increase.	Decrease.
	Rx.	Rx.	Rx.	Rx.
Revenue - - - - - - -	89,143,283	90,172,438	1,029,155	—
Expenditure - - - - - -	88,675,748	91,005,850	2,330,102	—
Surplus - - -	467,535	—	Result worse by - - Rx. 1,300,947	
Deficit - - -	—	833,412		

In the gross revenue are included very large receipts, amounting altogether to little less than one-third of the whole, which (being derived from the working of the railways and canals, the operations of the Postal and Telegraph Departments, the interest received on loans to municipalities, landholders, &c., and on the investments of the Currency Department, the seignorage on coinage, the contributions by officers towards their pensions, the sale of stores, and the receipts of the various administrative departments), are rather of the nature of a set-off against the corresponding charges than revenue proper; and, on the other hand, there are included in the expenditure, firstly, one set of charges which must be regarded as a direct set-off against corresponding items of income, viz., the cost of collection of revenue; and, secondly, two very variable charges, viz., (1) that which is incurred for the production of opium, and is subject to variations caused by the state of the season and of trade, and (2) that which is incurred for the establishment and maintenance of public works, and necessarily increases as more works are brought into operation. The financial position of the Government can, therefore, be much better appreciated by looking at the net revenue and expenditure, a statement of which is regularly appended to the Financial Statement annually laid before Parliament.* The following is the comparison of the net revenue, *i. t.*, of the gross revenue after the deduction of the cost of collection and other direct demands, with the net expenditure, *i. t.*, the expenditure after the deduction of the various departmental receipts :—

NET REVENUE.

REVENUE.	1891-92.				1892-93.				NET REVENUE.	
	Gross Revenue.	Deductions. Refunds and Drawbacks.	Deductions. Charges in respect of Collection.	Net Revenue.	Gross Revenue.	Deductions. Refunds and Drawbacks.	Deductions. Charges in respect of Collection.	Net Revenue.	Increase.	Decrease.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue - -	23,965,774	64,490	3,835,126	20,066,158	24,905,328	55,000	3,936,345	20,913,983	847,825	—
Opium - - - -	8,012,380	12	1,861,813	6,150,555	7,993,180	135	1,602,496	6,390,549	239,994	—
Salt - - - -	8,636,182	38,112	459,034	8,139,036	8,656,104	29,986	458,707	8,167,411	28,375	—
Stamps - - -	4,262,156	47,198	138,447	4,076,511	4,448,540	53,744	141,264	4,253,532	177,021	—
Excise - - - -	5,117,264	30,355	190,097	4,896,812	5,242,443	32,240	193,013	5,017,190	120,378	—
Provincial Rates - -	3,502,337	5,463	58,703	3,438,671	3,706,498	7,849	55,659	3,642,990	204,319	—
Customs - - -	1,701,288	46,977	136,363	1,517,948	1,617,633	58,836	140,634	1,418,163	—	99,785
Assessed Taxes - -	1,652,823	14,726	29,577	1,608,520	1,686,141	15,615	30,171	1,640,355	31,835	—
Forest - - - -	1,490,582	5,657	843,926	640,999	1,591,332	2,485	865,225	723,622	82,623	—
Registration - -	399,802	1,363	207,863	190,576	430,064	1,398	213,116	215,550	24,974	—
Tributes from Native States.	775,961	—	—	775,961	790,112	—	—	790,112	14,151	—
	59,517,049	254,353	7,760,949	51,501,747	61,067,375	257,288	7,636,630	53,173,457	1,671,710	—
Deduct,— Assignments and Compensations.	—	—	—	1,531,860	—	—	—	1,567,776	35,916	—
TOTAL NET REVENUE -	—	—	—	49,969,887	—	—	—	51,605,681	1,635,794	—

* *See* page 68 of Financial Statement for 1893–94 (Commons Paper, 207 of 1893), and the corresponding page of the Financial Statement for 1894–95.

FINANCE.

NET EXPENDITURE.

EXPENDITURE.	1891-92.			1892-93.			NET EXPENDITURE.	
	Gross Expenditure.	Receipts.	Net Expenditure.	Gross Expenditure.	Receipts.	Net Expenditure.	Increase.	Decrease.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Interest	4,315,176	879,443	3,435,733	4,374,263	869,727	3,504,536	68,803	—
Post Office, Telegraph, and Mint	2,429,188	2,575,736	*—146,548*	2,505,625	2,736,953	*—231,328*	—	84,780
Civil Departments	13,853,842	1,656,157	12,197,685	14,259,912	1,607,876	12,652,036	454,351	—
Miscellaneous Civil Charges	5,046,622	897,284	4,149,338	5,537,840	876,994	4,660,846	511,508	—
Famine Relief and Insurance	1,268,319	—	1,268,319	1,116,103	—	1,116,103	—	152,216
Construction of Railways (charged against Revenue, in addition to that under Famine Insurance).	163,233	—	163,233	339,487	—	339,487	176,254	—
Railway Revenue Account	20,253,910	19,938,046	315,864	20,924,155	19,077,103	1,847,052	1,531,188	—
Irrigation	2,945,019	2,272 040	672,979	2,940,479	2,418,902	521,577	—	151,402
Buildings and Roads	6,208,752	627,124	5,581,628	5,846,480	653,188	5,193,292	—	388,336
Army	22,280,601	780,404	21,500,197	23,419,111	864,320	22,554,791	1,054,594	—
Special Defence Works	604,848	—	604,848	458,060	—	458,060	—	146,788
	79,369,510	29,626,234	49,743,276	81,721,515	29,105,063	52,616,452	2,873,176	—
Provincial and Local Surpluses	—	—	—	—	—	—	—	—
" " " Deficits	—	—	240,924	—	—	177,359	63,565	—
TOTAL NET EXPENDITURE	—	—	49,502,352	—	—	52,439,093	2,936,741	—

Thus, there was an increase of the net revenue by Rx. 1,635,794, and of the net expenditure by Rx. 2,936,741, making the result worse by Rx. 1,300,947, and turning the surplus of Rx. 467,535 in 1891-92, into a deficit of Rx. 833,412 in 1892-93. This is entirely attributable to the fall in exchange from 16·733*d.* per rupee in the former, to 14·985*d.* in the latter year, the effect being to increase the net charge for exchange by Rx. 2,869,567. Of this amount, Rx. 988,828 occurred in the Railway Revenue Account, Rx. 951,761 in the army charges, Rx. 328,640 in interest, Rx. 322,638 in Civil Superannuation, Rx. 116,807 under Marine, and Rx. 160,893 under other heads. Apart from Exchange, there was a net improvement of Rx. 1,568,620, the net revenue being better by Rx. 1,640,766, while the net expenditure was higher by Rx. 72,146. The increase in the net revenue occurred in all the principal heads except Customs, more than half being attributable to land revenue, which rose by Rx. 838,379; opium was better by Rx. 240,221; provincial rates by Rx. 206,705; stamps by Rx. 187,573; excise by Rx. 122,240; and other heads by Rx. 45,648. The increase in the net expenditure was the outcome of various changes; the railway revenue account was worse by Rx. 542,360, the net receipts on the State lines having been much less than in the previous year; the cost of the civil departments was enhanced by Rx. 273,918, much of which arose from heavy payments for the construction of vessels for the Marine Department; the charge for interest was less by Rx. 259,837, in consequence mainly of the lower payment for discount on a sterling loan; there was a reduction of Rx. 412,080 under buildings and roads; and of Rx. 72,215 under other heads.

In the tables in the Appendix, the net revenue and expenditure in India of the several provinces under the chief heads are shown for the years 1891-92 and 1892-93, to which is added a table of the net payments in England, with the loss by exchange thereon, the figures in all the tables combined resulting in the totals of net revenue and expenditure given above. The revenue

revenue and expenditure of Berar, which form no part of the general finances of the Government of India, are not given in this chapter, but are referred to under Hyderabad, in the chapter on Native States. The surplus revenue of the various Provinces, as shown in the Summary on page 182, defrayed the general charges in India and in England in approximately the following proportions: in 1891-92, Bengal, 38 per cent.; North West Provinces, 21; Bombay, 15; Punjab, 11; Madras, 7; Burma, 4; Central Provinces, 3, and Assam, 1; in 1892-93, Bengal, 41; North West Provinces, 20, and the Punjab, 9 per cent., the other Provinces contributing in the same proportion as in the previous year. FINANCE.

CAPITAL OUTLAY ON PUBLIC WORKS.

The total capital outlay on railways and irrigation works, the expenditure in England being converted into Indian currency at the average rate obtained for the Secretary of State's bills during the year, was as follows:— Capital Outlay on Public Works.

	1891-92.	1892-23.	Increase.	Decrease.
Amount supplied by borrowing or from the Cash Balances, without being charged against the Revenue of the Year:	Rx.	Rx.	Rx.	Rx.
State Railways	2,770,336	3,455,199	684,863	—
Irrigation Works	729,664	531,091	—	198,573
TOTAL	3,500,000	3,986,290	486,290	—
Amount defrayed from Revenue:				
Provincial Railways, &c.	187,854	† 339,487	619,227	—
Protective Railways	484,795	984,469		
Protective Irrigation Works	77,931	60,793		
Other Irrigation Works*	25,452	10,510		
TOTAL Direct Outlay by the State	4,276,032	5,381,549	1,105,517	—
In addition to this, the outlay by companies guaranteed or subsidised by the Government was	1,300,229	1,309,000	8,771	—
So that the TOTAL Outlay was	5,576,261	6,690,549	1,114,288	—

* Excluding capital outlay on the minor works, against which interest is not charged in the Accounts.
† Including Rx. 201,225 contributed by Madras for the East Coast Railway.

DEBT.

The following alterations were made in the amount of the debt in 1891-92 and 1892-93 respectively:— Debt.

	1891-92.	1892-93.	Increase.	Decrease.
In India Rx.	—54,345	245,235	299,580	—
In England £.	2,995,935	—720,376	—	3,716,311

FINANCE.

In 1891–92 no loan was raised for public works in India, and debt to the amount of Rx. 54,345 was discharged. In England a loan of 2,600,000*l.* India 3 per cent. Stock was issued, at an average price of 94*l.* 10*s.* 2½*d.* per cent., of which 1,597,394*l.* was applied to the discharge of India 3½ per cent. Debentures, and of debentures of the Oude and Rohilkund and South Indian Railways bearing the same rate of interest; the remainder was needed for advances to companies constructing railways in India under engagements with the Government. Later in the year there was an unexpected demand caused by the necessity of discharging certain guaranteed railway debentures, which the holders were unwilling to renew on the terms offered by the Government; owing to this reduction of the cash balance, and in order to be in a position to discharge 1,000,000*l.* Oude and Rohilkund Railway debentures falling due on the 1st of April 1892, it became necessary to sell a further amount of 2,000,000*l.* India 3 per cent. Stock. The total sterling debt raised was, therefore, 4,600,000*l.* at 3 per cent.; the amount discharged was 1,503,100*l.* debentures at 3½ per cent., and also 4,262*l.* of India stock at 4 per cent., and 96,703*l.* at 3½ per cent.; consequently the net increase was 2,995,935*l.*

In 1892-93, for the third time in succession, the Government of India was able to dispense with a public loan; but Rx. 250,000 was borrowed, at 4 per cent., from the Rampur State, towards the construction of a line of railway from Moradabad to Bareilly through Rampur; and, debt being discharged to the amount of Rx. 4,765, the net increase was Rx. 245,235. In England a loan of 1,300,000*l.* India 3 per cent. Stock, which was subscribed on the 29th of April 1892, at an average price of 96*l.* 18*s.* 4*d.* per cent., was issued for the discharge, in addition to the 1,000,000*l.* of Oude and Rohilkund Railway debentures already mentioned, of 920,300*l.* of railway debentures similarly bearing 3½ per cent. interest, while 1,340*l.* of India stock at higher rates was also paid off, as well as 98,736*l.* of stock bearing 3½ per cent. interest; there was, therefore, a net reduction of debt to the amount of 720,376*l.*

SAVINGS BANKS AND OTHER OBLIGATIONS.

Savings Banks and other Obligations.

The following table shows the amount received and paid on account of savings banks, loans to municipalities, and other obligations in India :—

	1891–92.	1892–93.
	Rx.	Rx.
Savings Banks, &c. (net deposits)	851,173	922,339
Loans to Port Trusts, Municipalities, Native States, &c. (net disbursements)	—*488,787*	—*356,268*
Provincial Advances and Loans (net disbursements)	—*465,405*	—*493,340*
Other Obligations (net receipts)	421,728	310,175
TOTAL	318,709	382,906

CASH BALANCES.

Cash Balances.

The following statement shows the amount of the cash balances, and the extent to which they were increased or reduced by the transactions of the year :—

	On 1st April			Increase or Decrease.	
	1891.	1892.	1893.	In 1891–92.	In 1892–93.
In India - - Rx.	17,876,244	17,287,005	15,271,756	—*589,239*	—*2,015,249*
In England - £.	3,835,050	4,122,626	2,268,388	287,576	—*1,854,238*

COINAGE AND PAPER CURRENCY.

Coinage and Paper Currency.

The value of the coinage at the Mints of Calcutta and Bombay was :—

	CALCUTTA.		BOMBAY.		TOTAL.	
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Gold	24,786	—	11	—	24,797	—
Silver	1,479,020	2,998,018	4,074,950	9,613,510	5,553,970	12,611,528
Copper	166,317	131,119	—	—	166,317	131,119
TOTAL	1,670,123	3,129,137	4,074,961	9,613,510	5,745,084	12,742,647

The receipts and expenditure of the Indian Mints were as follows :—

	1891-92.	1892-93.
	Rx.	Rx.
Receipts	210,046	310,335
Expenditure	97,109	112,007
Net Receipts	112,937	198,328

On the 31st of March 1893 the amount of notes in circulation was Rx. 26,401,820, being Rx. 2,325,412 more than on the corresponding date in 1892. The reserve was, in silver coin Rx. 17,538,574, in silver bullion Rx. 868,246, and in Government securities Rx. 8,000,000, while a deduction of Rx. 5,000 must be made for notes in transit from Calcutta to Bombay.

OPIUM.

Opium. General.

The opium revenue is raised partly by a monopoly of opium in Bengal, and partly by the levy of a duty on all opium exported from Native States. Though the poppy can be grown in most parts of India, its cultivation in British territory is permitted only in parts of Bengal and of the North West Provinces and Oudh. A few thousand acres of opium are grown in the Punjab for local consumption. The cultivator of opium in the monopoly districts receives advances to enable him to prepare the land for the crop, and he is required to deliver the whole of the produce at a fixed price to opium agents, by whom it is despatched to the Government factories at Patna and Ghazipur to be prepared for the China market. The chests of manufactured opium are sold by auction at monthly sales which take place in Calcutta; and in order to prevent speculation and to steady prices, the quantity to be offered at each sale during each year is notified in the previous year. A sufficient reserve is retained to supply the deficiencies of bad seasons; but owing to a succession of four bad opium crops the reserve is now exhausted. A small quantity of opium is used by the Indian excise departments. In 1861 the average price of opium sold by auction for the China market was as high as Rx. 185 per chest of 133 lbs. weight, but since that year it has fallen. In the calendar year 1893 the average price was Rx. 115½; it had been Rx. 116 in 1892, 103¾ in 1891, and 105½ in 1890.

Opium is grown in the Native States of Rajputana and Central India. Some of these States have agreed to assimilate their internal opium arrangements to the British excise system, and to prevent contraband dealings. They levy heavy dues on opium exported from their territories for the China market, and such opium pays to the Indian Treasury a duty which amounted in 1892-93 to Rx. 60 per chest on exportation.

After the close of the year 1892-93 a Royal Commission was appointed to investigate and report upon the Indian opium question.

The yield of the opium revenue for the past four years has been :—

—	1889–90.	1890–91.	1891–92.	1892–93.
Opium Receipts :	Rx.	Rx.	Rx.	Rx.
Auction sales of monopoly opium - - -	6,477,079	5,914,320	5,954,292	6,096,227
Duty on Bombay or Malwa opium - -	1,890,854	1,954,088	1,844,281	1,675,653
Cost of opium issued to the Excise and other Departments.	215,123	210,774	213,867	221,300
Total - - - Rx.	8,583,056	7,879,182	8,012,440	7,993,180
Opium expenditure, chiefly in Bengal - -	1,605,107	2,180,797	1,861,813	1,602,496
Net Opium Revenue - - - Rx.	6,977,949	5,698,385	6,150,627	6,390,684

The number of chests of Bengal opium sold in the two earlier years was 57,000, but it fell to 56,250 in the year 1891–92, and to 48,852 chests in the year 1892–93; the number of chests of Bombay opium paying duty was 28,372 in the year 1889–90, 28,413 in 1890–91, 30,654 in 1891–92, and 27,845 in the year 1892–93. The receipts shown above are outside the provincial opium duties of Rx. 747,792, shown in the excise section of this Statement as the receipts of 1892–93.

The

The net revenue from opium for 1892–93, though considerably below what it was in former years, shows an increase on that of 1891–92, which is mainly due to the poor opium crop, whereby the expenditure on payments to opium-growers was diminished in Bengal. The net opium revenue during recent years has been as follows:— Opium.

Net Opium Revenue in	Rx.	Net Opium Revenue in	Rx.
1872–73 - - - -	6,870,423	1888–89 - - -	5,964,404
1875–76 - - - -	6,250,860	1890–91 - - -	5,698,385
1878–79 - - - -	7,700,671	1891–92 - - -	6,150,627
1880–81 - - - -	8,451,276	1892–93 - - -	6,390,684
1883–84 - - - -	7,701,518		

The area actually cultivated with the poppy in the Ganges Valley, which had been 556,527 acres in 1885, was 463,664 acres in 1891–92, and 454,244 acres in 1892–93. The yield of opium had been very short in 1891–92, and was again poor in 1892–93; the total quantity manufactured was 39,701 and 42,890 chests in the two years, as compared with 74,325 chests in 1887–88. In 1892–93 the yield of opium was 12½ lbs. per acre, against 11½ lbs. in the preceding season, and against a normal out-turn of 18 lbs. per acre in a year of good harvests. The opium reserve in Calcutta, which ought to stand at 30,000 chests at the end of every year, is expected to have entirely disappeared by December 1894, notwithstanding that the yearly sales have been reduced by 12,000 chests. It is reported that cultivators of opium have lost heart, after experiencing several bad opium seasons in succession; that "poppy does not pay as well as it used to do," and that "the previous "unfavourable seasons, coupled with the competition of potato, sugar-cane, "and wheat have had their effect on the cultivators." The number of prosecutions for breaches of the Opium Laws in the year 1892–93 was 618, or the same number as in the preceding year. The percentage of convictions was 87 per cent. as compared with 93 per cent. in the year 1891–92. Bengal.

The number of chests of duty-paid Malwa opium brought into Bombay from Rajputana and Central India was 26,655, or 13 per cent. less than in the preceding year. The rate of duty was the same as in 1891–92. Of the Malwa supply, 10 chests were exported to African ports, and 57 chests to Cochin and Allepey; and 25,243 chests were sent to China, or 3,878 less than in 1891–92. The licit consumption of opium in British districts of the Bombay presidency was 127,149 lbs., as compared with 140,638 in the previous year. The issue price of opium from the Government depôts was ten rupees per lb. The quantity of opium taken by Native States from the Bombay Government during the year was 93,364 lbs, as compared with 106,665 lbs. and 102,052 lbs. in the two previous years.

SALT.

SALT. General.

The salt revenue is raised by a duty on all salt imported into, or manufactured in, India. The rate of duty has in past times ranged from ¼th of a rupee (in Burma) to 3¼ rupees (in Bengal) per maund of 82 lbs.; during the year 1892–93 the rate was 2½ rupees over the whole of India, except Burma, where it was fixed at one rupee per maund. The Indian sources of salt supply are the coast, where salt is manufactured for the consumption of all southern and western India and part of Burma and Central India; the salt lakes and other sources of Rajputana, which supply the North-Western Provinces, Oudh, and a part of Central India; the salt mines of the Punjab, which supply that province and a varying area southward; importations from beyond the sea, which supply Bengal and the greater part of Burma. The duty is levied on salt at the place of manufacture, or at the port of importation, before it passes into consumption. The regions supplied from each source contract or extend, according to varying circumstances of the season, or of markets, or of means of carriage; for instance, when an unusually wet season limits salt production by solar evaporation on the coast, the inland sources of supply send salt to make up for the deficiency; when a railway was opened to the Punjab mines, salt made its way thence further south and east.

The SALT REVENUES and CHARGES in the year 1892–93 were as follows :—

PROVINCE.	Price of and Excise on Salt made Locally.	Duty on Imported Salt from England.	Duty on Salt Imported from other Sources.	Miscellaneous.	TOTAL.	Charges.	Net Salt Revenue.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Northern India	1,913,533	—	—	16,969	1,930,502	116,457	1,814,045
Burma	17,251	140,648	—	920	158,819	738	158,081
Bengal	—	1,605,639	701,031	12,822	2,319,488	6,826	2,312,662
Madras	1,930,358	415	—	21,010	1,951,783	169,379	1,782,404
Bombay	2,155,280	613	739	6,144	2,162,776	135,125	2,027,651
TOTAL, 1892-93	6,016,422	1,747,311	701,770	57,865	8,523,368	428,525	8,094,843
1891-92	5,751,574	1,856,869	523,546	55,750	8,187,739	412,462	7,775,277

The charges above shown do not include a sum of about Rx. 300,000 paid under treaties to Native Chiefs who have assigned the management of their salt sources to the British Government. An increase of Rx. 512,000 in the salt revenue was shown in 1889–90, and now a further increase of Rx. 319,566 is shown for the year 1892–93. This advance of the revenue is due to the increase of consumption, as there has been no enhancement of duty. The alteration in the duty in 1888 temporarily checked consumption, which fell in 1888–89 below the average of the two previous years, but has since 1891–92 been higher than before 1888, thus :—

In the Year	Total Actual Consumption of Duty-paid Salt in India, inclusive of Burma.	
1885–86	32,289,000	Maunds, each maund being equal to 82⅔ lbs. avoirdupois.
1886–87	34,330,000	,,
1888–89 (The rate of duty was raised in January 1888 from 2 Rs. to 2½ Rs. per maund).	31,474,000	,,
1889–90	33,486,000	,,
1890–91	33,722,000	,,
1891–92	34,851,000	,,
1892–93	35,451,000	,,

The

The amount of local salt consumed in Burma is not precisely known, but in the foregoing figures is estimated at 400,000 maunds in 1889–90 and subsequent years, but at 560,000 maunds in each previous year. SALT.

The duty-paid salt probably provides for about 270 million people in British and Native India. At this rate the total consumption (35,451,000 maunds for 270,000,000 people) falls at about $10\frac{3}{4}$ lbs. per head. But the average consumption differs widely in the several provinces, ranging from $18\frac{3}{4}$ lbs. per head in Burma and $16\frac{1}{3}$ lbs. in Madras to $10\frac{1}{4}$ lbs. per head in Bengal and about 8 lbs. per head in the North-Western Provinces and Oudh.

The North India Salt Department controls the salt sources of the Punjab and of Rajputana, whence are supplied the wants of the Punjab, Oudh, the North-Western Provinces, the northern districts of the Central Provinces, and the greater part of the Rajputana and Central India States. The sales of duty-paid and free salt at the northern salt sources amounted to 8,897,000 maunds, or 8 per cent. above the sales of the previous year; the total consumption of 1892–93 was 19 per cent. higher than the average consumption of the three years before the enhancement of the duty in 1888. A large increase of consumption occurred in salt from the Sambhur Lake works and also in Punjab salt; Didwana salt alone showed a decrease, and can no longer compete with Sambhur Salt. Of the total consumption, the Sambhur salt lake supplied 5,109,000 maunds, the Mayo mine in the Punjab supplied 2,083,000 maunds, and the remainder came from minor salt sources. The gross receipts of salt revenue increased from Rx. 1,957,000 to Rx. 2,129,000, and were the highest ever realised; the charges came to 4·8 per cent. on the receipts, as against 6 per cent. in the previous year. A further reduction was effected in the price of Sambhur salt, which since the year 1872, when the Rajputana salt sources were first leased by Government, has fallen from $10\frac{3}{4}$ annas, exclusive of duty, to $2\frac{2}{3}$ annas a maund. The number of prosecutions for breach of the salt law fell from 775 to 541; of this latter number 42 persons were acquitted and only 15 were sentenced to imprisonment. Northern India.

The price of Sambhur salt at the Cawnpore market rose from $3\frac{1}{8}$ to $3\frac{3}{16}$ rupees per maund; Punjab rock salt ruled a trifle cheaper than in the preceding year.

The total quantity of salt on which duty was paid in Bengal during the year was 10,143,000 maunds, or about one per cent. more than in the previous year; the amount imported and manufactured during the year was 9,451,000 maunds, of which there came from, Bengal.

	Maunds.		Maunds.
The United Kingdom - -	5,941,000	Red Sea and Persian Gulf Ports	887,000
Germany - - - -	938,000	Aden - - - - - -	1,000,000
Bombay - - - - -	544,000	Orissa Coast Factories - -	67,000
Madras - - - - -	74,000		

The gross salt revenue was Rx. 2,431,000, or 1 per cent. above the receipts of the preceding year, against an expenditure of Rx. 44,800. The consumption of licit salt in the seven saliferous districts outside Orissa decreased by 5 per cent. In Orissa the consumption of locally-manufactured salt, and also of salt from Calcutta showed an increase over the previous year; but imports from Ganjam fell off largely; and the total consumption of Orissa was nearly 2 per cent. less than in the year 1891–92. The number of prosecutions for offences under the salt laws rose from 1,366 in the previous year to 1,472, of which 682 occurred in Orissa, and in 118 cases the accused persons were acquitted The stocks of salt were unusually low at the end of the year; prices ranged from $3\frac{1}{4}$ rupees per maund in Calcutta at the cheapest season, to $4\frac{3}{4}$ rupees per maund in Lohardugga at the dearest season; in Orissa the price ranged from $3\frac{3}{8}$ to $3\frac{7}{8}$ rupees per maund. The average consumption of salt in Bengal, according to the census figures of 1891, was $10\frac{1}{4}$lbs. per head; it was the same in the saliferous as in the non-saliferous tracts, save in Orissa, where it was $9\frac{7}{8}$lbs per head.

SALT. Madras.

It was explained in a previous statement that in Madras, where salt is made on the coast by solar evaporation, a limited number of Government salt factories had been re-opened in order to remedy the evils of high prices and small stocks, which had resulted from the handing over of the manufacture of salt to capitalists under an excise system. The intention is to create as soon as possible a reserve of Government salt, but not to disturb the market by selling Government stocks unless the supply should run short or prices be forced up at any salt mart; the Government reserve stocks are eventually to be somewhat more than one-third of a year's consumption. During the year 1892-93 there were 60 factories at work, of which 17 were Government establishments. The reserve of Government salt was brought up to 3,105,000 maunds. The average price of bonded salt throughout the presidency, which had been $6\frac{1}{16}$ annas per maund under the excise system in 1887–88, was further reduced to $3\frac{1}{2}$ annas per maund in 1892–93; and the highest maximum in any district was 9 annas at Negapatam for a short time while stocks were low. The total quantity of salt manufactured during the year was 9,244,000 maunds against 9,733,000 in the preceding year, and an average of 5,260,000 maunds in the two years 1885–87, when the output of salt was too low. The salt stocks at the end of the year were equal to 23 months' supply, as compared with the 20 months' supply at the end of the previous year, and five months' supply at the end of 1886–87. The reason for maintaining such large stocks is that an unfavourable season may in any year reduce the output of existing factories by 50 per cent.

The issues of Madras salt for home and inland consumption were 8,157,000 maunds, or 0·34 per cent. below the issues of the preceding year. The decrease was attributed to the decreased demand for Ganjam salt in Orissa. It continues to be clear that the enhancement of the salt duty from Rs. 2 to Rs. $2\frac{1}{2}$ a maund in January 1888 has had no permanent effect on the consumpton of salt in the Madras Presidency. The average yearly issues of Madras salt for home and inland consumption have been :—

Period.	Rate of Duty per Maund.	Average Yearly issues for Consumption.	
	Rs. a. p.	Maunds.	
1861–65	1 5 –	6,372,000	Exclusive of salt issued at low rates for fish curing.
1866–68	1 8 –	6,728,000	
1869–75	1 13 –	6,509,000	
1878–81	2 8 –	6,178,000	
1882–87	2 – –	7,459,000	
1888–89	2 8 –	7,724,000	
1890–91	2 8 –	7,923,000	
1892–93	2 8 –	8,157,000	

The consumption of local salt is thus now 32 per cent. higher than it was in the previous era of the same rate of duty, namely, from 1878 to 1881. The consumption of salt by 34,288,000 of the population of South India, including Mysore, Coorg, and certain Native State, came to $15\frac{1}{2}$lbs. per head; the consumption by the population of the Madras Presidency only, exclusive of four coast districts, came to $16\frac{1}{3}$ lbs. per head. These ratios are reckoned on the increased population shown by the census of 1891.

The gross revenue from Madras salt was Rx. 1,930,000, or $3\frac{1}{3}$ per cent. below the receipts of the preceding year. The decrease was due mainly to the reduced demand for Orissa, and partly to an increase in credit sales of salt. Prosecutions under the salt laws, though slightly fewer than in the previous year, were still numerous; 18,719 persons were charged with salt offences, of whom 4,453 were released by departmental officers with a warning, and 13,947 were sent for trial. Of the persons tried during the year by magistrates nearly 99 per cent. were convicted. The average fine imposed on offenders against the salt laws was $1\frac{1}{4}$ rupees.

During the year 140 bonded yards in the Madras Presidency were open for curing fish under special regulations, whereby cheap salt is sold to fish curers. The quantity of fish brought to be cured was 45,036 tons, or 5 per cent. less than in the previous year; 5,899 tons of salt were sold for curing fish

fish in bond; and the average quantity of salt used was 2 cwts. 69 lbs. to every ton of fish. The cost of the yards to the treasury was more than covered by the price realised for salt. Nearly all the salt fish is consumed within the presidency, the exports being returned at 3,770 tons, valued at 1½ annas (about 1½ pence) per pound. SALT.

On the Bombay coast salt is made partly by boiling, and partly by solar evaporation, at 384 factories; no new factories or salt works were opened during the year 1892-93; but 62 salt works were closed at Sanikatta on the North Kanara coast. Owing to the termination of the Portuguese treaty, British salt from the Bombay coast is now able to compete with Goa salt in the Malabar and Mysore markets on more favourable terms. The amount of salt manufactured was 9,156,000 maunds, or 1,604,000 maunds less than in the previous year; the quantity of salt written off as wastage was 8½ per cent., being about the same as in the previous year. The total removals of salt for consumption came to 8,715,000 maunds. The amount of duty-paid salt issued for consumption in the Bombay Presidency was 3,228,000 maunds, or 11·11 lbs. per head of the population, as compared with 11·82 lbs. in the previous year. It is said that consumption has not really decreased; issues from Government stocks fell off because local markets had been glutted with salt at the end of the previous year. In Guzerat the rate was 8·05 lbs. per head, and in the rest of the presidency it was 12·84 lbs.; yet Guzerat is the richest part of the province. The gross salt revenue receipts were Rx. 2,180,000, or Rx. 83,000 below the total of the previous year, and Rx. 78,000 above the corresponding figure for 1890-91. During the year, the average price of salt, exclusive of duty, ranged from 1 anna 11 pie per maund at the Konkan works to 3¾ annas per maund at the Shiroda works; the wholesale price of duty-paid salt ranged from Rs. 3 per maund in the cheapest district, Kolaba, during April to Rs. 4$\frac{1}{10}$ per maund in Kanara, the dearest district, during December. In Bombay only five fish-curing yards were at work; the quantity of fish brought to be cured in bond was 1,001 tons, and 318 maunds of cheap salt were issued to fish curers. The number of persons tried for offences under the salt laws was 872, against 724 in the previous year; the number convicted was 773, against 639. Bombay.

In Sind the amount of duty-paid salt passed into consumption rose from 244,000 maunds to 249,000 maunds, and the salt revenue was Rx. 70,300, or Rx. 2,370 above the receipts of the previous year. The consumption of duty-paid salt came to 7·4 lbs. per head of the population against 7·27 lbs. in the previous year. The number of prosecutions for salt offences rose from 213 to 232; the quantity of illicit salt seized was only 7¼ maunds. The average retail price of salt remained stationary at Rs. 3. 6a. 5p. per maund. Sind.

The amount of salt imported into Burma in 1892-93 was 1,422,000 maunds, against 1,359,000, 1,406,000 and 1,190,000 maunds in the three previous years. The revenue on salt manufactured locally was Rx. 17,673, as compared with Rx. 16,611 in the year 1891-92, representing a production of perhaps 400,000 maunds in each year. The total salt revenue of Burma was Rx. 162,200, against Rx. 161,000 in the preceding; and the total consumption was approximately 1,822,000 maunds during the year, equal to about 18¾ per head for 8 million people in Burma and the Shan States. Burma.

EXCISE.

The excise revenue of India is raised by duties upon, and by fees for, licenses to sell liquors and intoxicating drugs. Tobacco, which is grown in almost every village, and is consumed by nearly all men and by many women in the empire, is not subjected to any duty; tea and coffee, which are grown largely for Indian consumption and for exportation, are also free from all duties. Excise duties are raised, under legislative enactments, partly by the periodic sale of monopolies in specified excisable articles over defined areas; partly by a stillhead duty on all spirits manufactured at distilleries; partly by the issue of licenses for the working of stills at specified places; and partly by fees on licenses to sell different kinds of liquors. The duties on intoxicating drugs, and on fermented liquors other than beer brewed after the European fashion, are raised mainly by yearly sales of monopoly licenses. A customs duty is also levied on all imported spirits, wines, EXCISE. General.

EXCISE.

wines and beer. The import duty is six rupees per gallon on London proof spirit; 2½ rupees per gallon on sparkling wines; one rupee per gallon on other wines; and one anna per gallon on beer. Over almost the whole of Bombay and the Punjab; over the populous parts of Madras, the North Western Provinces, Oudh, and Burma, and over some parts of Bengal and the Central Provinces, a still-head duty is levied on all Indian spirit according to its alcoholic strength. The still-head duty ranges as high as five rupees per gallon of London proof spirit; if the cost of licenses be added, the total duties are in places more than seven rupees per gallon of spirits. The system of excise management followed in these tracts is called the central distillery system. Over a large, but decreasing part of Bengal, and over most of the Central Provinces, over the whole of Assam and Berar, and over limited tracts in other provinces, revenue is levied on Indian spirits by leasing the spirit monopoly to the highest bidder, which is called the farming system; or by licensing the establishment of private stills, which is called the out-still system. The central distillery system is admittedly the best for preventing the spread and consumption of cheap liquor; and the Government of India have decided to extend that system, and to restrict the farming and out-still systems as narrowly as possible. The difficulty is that in sparsely-peopled forest tracts the materials for illicit distillation are everywhere available; the tribes addicted to drinking often live in these regions; an adequate and trustworthy preventive staff cannot be kept in such places; and illicit practices prevail, to the consequent demoralisation of the people, if weak liquor cannot be obtained in some lawful way. Licensed out-stills are sometimes the only means of meeting the requirements of such exceptional tracts.

The following table gives the excise revenue of 1892-93 for each province under the different heads, as shown in the financial accounts:—

——	India, General.	Bengal.	North West Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
License and Distillery Fees, and Duties for the Sale of Spirits, Fermented Liquors and Drugs, viz:—	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
License Fees and Farmers' Rent.	6,310	605,576	134,833	57,348	182,266	43,064	32,218	630,776	58,389	1,757,780
Distillery Fees - - -	22,400	6,065	87	354	5,569	112,733	-	130	37,723	184,601
Still-head Duty - - -	64,952	194,333	253,173	59,665	62,729	16,114	1,778	286,400	665,772	1,605,016
License Fees for sale of Opium and its preparations.	3,336	51,063	17,450	34,326	61,337	28,533	28,080	33,454	9,305	266,884
License Fees for sale of other drugs.	3,758	19,534	73,892	17,059	-	13,776	16,925	4,531	2,918	152,293
Rent of Toddy Trees - - -	1,075	309	7,680	-	21	2,782	-	211,681	113,814	337,362
Total - - -	101,831	876,880	487,115	168,752	474,737	216,542	86,001	1,166,972	887,821	4,303,936
Duty on Opium consumed in India.	2,189	160,942	62,086	89,038	162,603	44,458	158,710	40,307	107,459	747,792
Acreage on Land cultivated with the Poppy.	-	-	-	4,234	-	-	-	-	-	4,234
Fines, Confiscations, Miscellaneous.	619	1,053	676	260	112	2,098	63	3,867	8,023	16,771
Duty on Ganja - - - -	268	120,583	-	-	-	12,510	13,956	-	22,393	169,710
TOTAL Revenue - - -	104,907	1,159,458	549,877	182,284	474,737	275,608	258,730	1,211,146	1,025,696	5,242,443
Charges - - - -	3,873	65,666	15,783	5,095	6,076	4,231	1,271	57,414	33,604	193,013
Net Revenue, 1892-93 -	101,034	1,093,297	534,094	177,189	468,661	271,377	257,459	1,153,732	992,092	5,049,433
Net Revenue, 1891-92 -	91,778	1,046,831	510,103	178,840	419,667	272,146	259,529	1,157,884	990,465	4,927,243

To this total must be added the sum of Rx. 610,253, yielded by import duties on liquors and spirits imported into India during the year 1892–93, whereby the whole drink and drugs revenue of India is raised to somewhat more than four annas a head on the whole population of British India.

There

There has been considerable increase in the excise revenue during the past 30 years; but this increase, though in part due to enhanced consumption of liquors caused by the growth of population and the general increase of earnings, is yet largely, and in some localities mainly, the result of improved excise administration, which has doubled or trebled the rates of liquor duty, and has, at the same time, restricted the use of illicit intoxicants. The totals of the excise and customs revenues on liquors and drugs consumed in India during the past 20 years compare thus :— Excise.

	Rx.		Rx.
1874–75 - - -	2,633,369	1889–90 - - -	5,294,420
1880–81 - - -	3,515,062	1890–91 - - -	5,373,699
1883–84 - - -	4,259,099	1891–92 - - -	5,516,827
1886–87 - - -	4,864,764	1892–93 - - -	5,659,685

For the 221¼ millions of people who inhabit the several provinces of British India and Berar, the total number of shops licensed for the retail sale of spirits, fermented liquors, opium and drugs, is as follows, province by province :—

PROVINCE.	Number of Retail Shops licensed in 1892-93 for the Sale of					
	Spirits made in India.	Imported Spirits or Liquors.	Toddy and Rice Beer or other Indian Fermented Drinks.	Opium and its Compounds.	Narcotic or Intoxicating Drugs, other than Opium.	Quantity of Opium sold for Local Consumption so far as known.
						Maunds, 82 lbs. each.
Bengal - - - - -	3,006	535	17,346	1,998	2,672	1,934
North West Provinces and Oudh.	6,819	207	4,411	1,040	3,872	1,703
Punjab - - - - -	1,271	438	38	1,780	1,621	1,523
Burma - - - - -	50	* 431	932	34	None.	1,736
Central Provinces - - -	6,792	46	751	1,133	1,047	633
Assam - - - - -	192	120	14	866	272	1,333
Madras - - - - -	11,974	693	18,755	1,030	246	889
Bombay - - - -	2,863	412	1,793	1,162	1,253	1,550
Berar - - - - -	1,122	19	973	478	484	437
TOTAL - - -	34,089	2,901	45,013	9,521	11,467	11,738

* In Burma the same shops are often licensed so sell foreign and central distillery liquor.

In Bengal the total excise revenues of 1892-93 and the two previous years were as follows :— Bengal.

Receipts from	1890-91.	1891-92.	1892-93.
	Rx.	*Rx.*	*Rx.*
Country spirits - - - - - - -	452,826	481,464	502,342
Foreign liquors and rum - - - -	32,948	45,379	62,700
Fermented local liquors, toddy and rice-beer -	111,787	126,151	128,425
Opium and its compounds - - - -	211,964	224,050	219,581
Gunja, bhang, and their compounds - -	235,941	235,056	245,070
Miscellaneous - - - - - - -	622	881	1,148
TOTAL - - -	1,046 088	1,112,981	1,159,266
Add duties on imported liquors - - -	161,311	160,360	167,693
GRAND TOTAL - - -	1,207,399	1,273,341	1,326,959

EXCISE. Bengal.

The policy of substituting the central distillery system for the out-still system of raising revenue from country spirits was not carried further in Bengal during the year. Out-stills had been abolished in 1890 over all districts of the Burdwan, Presidency, Dacca and Orissa divisions, containing a population of 30 millions. The number of central distilleries remained at 34, as in the previous year. The maximum number of licensed out-stills in the whole province was 1,931, as compared with 1,770 in the previous year, and 5,250 out-stills in the year 1881-82. In districts where out-stills are retained, special steps are taken to check and restrict the out-turn of spirit, and to keep the retail price at a higher rate than heretofore. The total number of retail licenses for the sale of country spirits, rum and imported liquors, during the past three years, has been :—

	1890-91.	1891-92.	1892-93.
Number of licenses granted for the retail sale of—			
Country spirits from out-stills - -	1,719	1,770	1,931
Country spirits from central distilleries -	1,303	1,149	1,175
Rum, imported wines, spirits and other liquors.	613	582	535
	3,635	3,501	3,641

Before a new license of the kind is issued for any locality, every care is taken to ascertain the opinion of the residents. No trustworthy estimate can be offered of the quantity of spirit passing into consumption from out-stills; but much of the out-still liquor consumed in Behar is said to be nearly 90° below London proof and vendors are encouraged to deal in weak liquor. The out-turn from central distilleries in the year was 398,478 gallons L.P. against 399,384 gallons in the previous year. The still-head duty levied on central distillery liquor ranges from 1⅞ to 5 rupees per gallon of proof spirit. Including still-head duty, license fees and other taxation, the total revenue on distillery liquor came to Rx. 240,306, or 6·03 rupees per gallon of London proof spirit. The revenue on country spirits raised from out-stills was Rx. 262,035, against Rx. 245,014 in the preceding year. The total revenue from country spirits, Rx. 502,341, was larger than that of any of the three preceding years, but was less than that of 1888–89 by nearly Rx. 7,000. The increase during the year was greater in the tracts supplied by out-stills than in the central distillery area.

The revenue from toddy was Rx. 94,970, as compared with Rx. 95,740 in the previous year, though the number of licensed shops was 15,675 against 16,920 in 1891–92, and 30,268 in the year 1881–82. The number of pach-wai, or rice-beer shops, was 1,671; the number of licensed ganja shops was 2,672, as compared with 2,578 in the preceding year, and the amount of licit ganja consumed was 5,451 maunds, against 5,677, and 6,095 in the two preceding years. The number of shops licensed for the retail sale of opium was 1,714, or 16 more than in the preceding year: the amount of licit opium consumed fell from 2,005 to 1,934 maunds. The number of shops licensed for selling opium, prepared after the Chinese fashion, known as chandu, was 71, against 72 in the previous year; and the licenses for selling madak, or opium prepared after the Bengalee manner, was reduced from 302 to 263. Smoking on licensed premises was forbidden.

The number of arrests for excise offences fell to 4,634, a decrease of 6½ per cent., and convictions were obtained against 3,934 persons; of whom 282 persons were convicted of the offence of illicit distillation.

The

The latest excise report for the North-Western Provinces and Oudh relates to the year ending in September 1892. For the last three years the excise revenues have been :—

Receipts from	1889–90.	1890–91.	1891–92.
	Rx.	Rx.	Rx.
Country spirits	334,300	307,965	322,193
Foreign liquors and rum	42,900	45,822	45,313
Opium	78,900	77,328	78,050
Other drugs	73,100	69,221	71,209
Toddy and miscellaneous	11,800	10,156	8,819
TOTAL	541,000	510,492	525,584

Though there was an increase of Rx. 15,092 over the revenue of the preceding year, still the total excise revenue was lower by Rx. 45,000 than it was in 1888–89. The falling off had been entirely under the revenue from country spirits, which, however, showed some recovery in the year under report.

The revenue from country spirits was raised as follows :—

(*a*) Rx. 284,100 under the central distillery system, which extends over districts inhabited by 37¾ millions of people.

(*b*) Rx. 24,500 under the out-still system, which extends over tracts containing 6 millions of people.

(*c*) Rx. 13,500 under the farming system, which extends over tracts containing 3⅛ millions of people.

These areas show some small change from the corresponding figures for the previous year. The total amount of spirit passed out of all central distilleries was 1,368,623 gallons, against 1,443,963 gallons in the previous year, and against 2,056,314 gallons in the year 1885–86. None of the liquor issued during the year was stronger than 25° below proof, and 13 per cent. of it was weaker than 50° below proof. The number of distilleries was 45, against 51 in the previous year. The number of licensed retail shops for country spirits in the two provinces further fell from 5,427 to 5,315 in the central distillery tracts ; and rose from 1,464 to 1,504 in the tracts where the out-still and farming systems prevailed ; while the retail licenses for rum and foreign spirits rose from 201 to 207 ; the consumption of rum from the Rosa factory rose from 21,934 gallons to 31,962 gallons.

The number of shops licensed for the sale of opium and its compounds was 1,016, as compared with 1,166 in the previous year. The allocation of opium licenses in the several districts is being considered. The chandu and madak shops, licensed for selling opium prepared for smoking, were reduced from 54 in the year 1888–89 to 26 in the year under report. The quantity of licit opium passed into consumption was 1,703 maunds, against 1,649 maunds in the previous year. The increase is attributed to the repression of illicit opium; and the quantity is identical with that consumed in 1889–90. The number of shops licensed for the sale of other narcotic drugs was 3,872, as compared with 3,903 in the previous year. The number of licensed toddy shops increased from 4,396 to 4,411, of which 3,067 are situated in the Benares and Gorakpur division, and only 901 in the other 7 divisions.

Prosecutions under the Excise Act increased 26 per cent, and those under the Opium Laws decreased slightly in comparison with the previous year; the prosecutions for illicit distillation were 252 against 98 in the preceding year. The proportion of convictions to prosecutions was 80 per cent., as in 1891–2.

Excise, Punjab.

The excise revenues of the Punjab in the last three years were raised as follows :—

Receipts from	1890-91.	1891-92.	1892-93.
	Rx.	Rx.	Rx.
Country spirits	93,579	97,094	99,027
Imported liquors and rum	27,779	30,600	32,435
Opium	45,948	46,177	47,773
Other drugs and miscellaneous	17,321	19,060	15,909
TOTAL	184,627	192,931	195,144

The increase of 1½ per cent. in the revenue was small, as compared with 8 per cent. in the previous year. It is explained that the prevalence of epidemic fever during three months of the year tended to restrict the consumption of spirits and to promote the use of opium.

The central distillery system is in force throughout the whole province, save in small parts of the Gurgaon and Kangra districts, and there were during the year 29 central distilleries. The rates of still-head duty are four rupees per gallon of proof spirit, three rupees per gallon of spirit less than 25° below proof; 2½ rupees for spirit from 50° to 25° below proof, and two rupees for spirit more than 50° below proof. Country spirits in the Punjab are distilled from molasses. The total consumption of licit spirits and the number of licensed shops for the past two years are returned thus :—

Consumption, &c.	1890-91.	1891-92.	1892-93.
Country spirits computed at London proof, in gallons.	180,662	188,292	192,279
Rum, London proof, in gallons	34,435	39,337	37,664
Other imported spirits, in gallons	84,279	85,481	79,234
Licensed retail shops for country spirits	1,461	1,289	1,271
Licensed retail shops for rum and imported liquors.	475	451	438

The opium revenue comprised Rx. 2,821 from an acreage fee on lands growing the poppy, and Rx. 35,915 from licenses for the vend of opium, besides Rx. 5,838, the duty on imported opium. The area licensed for poppy cultivation has shrunk from 15,254 acres in the year 1888–89 to 12,643 acres in 1891–92, and 9,857 acres in the year under report. The number of licensed opium shops was 1,780, as compared with 1,785 in the previous year, and 1,910 in the year 1889-90; the quantity of licit opium returned as consumed was 1,523 maunds, as compared with 1,566 maunds in 1891–92, and the total visible supply received into the province during the year was 1,705 maunds, against 2,921 maunds in the previous year. Licenses for shops where opium preparations could be consumed on the premises, *chandu* shops, or "opium dens," as they have been called, were all withdrawn years ago. It is reported that few people, and those mostly immigrants from outside the province, now indulge in smoking opium in private. The number of shops licensed to sell hemp and other drugs was 1,621, against 1,697 in the previous year.

It is reported that, in consequence of the stringent measures taken during the past four years, illicit distillation has much abated. The excise system of Native States has improved, and generally the Chiefs have closed all liquor shops within three miles of the British border. Some smuggling from Native States, however, still goes on. Prosecutions under the liquor laws

laws fell from 368 to 335, and under the opium laws from 917 to 482, as compared with the previous year. The decrease was chiefly under the head of trivial offences by opium cultivators. Excise.

In Burma the excise revenue during the past three years was raised thus :— Burma.

Receipts from	1890–91.	1891–92.	1892–93.
Lower Burma :	Rx.	Rx.	Rx.
Distillery and imported liquors - - -	89,068	104,150	116,992
Out-stills - - - - - - - - -	8,362	6,600	6,905
Toddy - - - - - - - - -	26,508	27,997	30,045
Other fermented liquors - - - -	41,727	53,810	49,287
Opium - - - - - - - - -	197,420	191,162	214,202
TOTAL - - -	363,085	383,719	417,431
Add duty on imported liquors - - -	91,227	86,784	103,283
Upper Burma excise - - - - - -	42,010	51,264	58,463
GRAND TOTAL - - -	496,322	521,767	579,177

Two central distilleries only were working during the year; they produced 22,358 gallons of spirits, as compared with 47,292 gallons produced by three distilleries in the preceding year. The Rangoon distillery was closed, as its liquor could not compete with the spirit imported from Madras and from abroad. The importations of foreign and Madras spirits increased considerably. At the end of the year the duty was raised from five rupees to six rupees a gallon on local distillery and Madras liquor at London proof. The number of out-stills in Lower Burma was 36, against 37 in the previous year; and in Upper Burma 12 against 14. Three central distilleries were at work in the upper province, and produced 33,057 gallons of spirits, against 19,629 gallons in the previous year.

The number of retail shops licensed under the excise and opium laws in the two sections of the province during the last two years was :—

	Lower Burma.		Upper Burma.	
	1891–92.	1892–93.	1891–92.	1892–93.
Out-still shops - - - - - -	37	36	12	14
Distillery spirit and foreign liquor shops	293	291	139	143
Toddy shops - - - - - -	898	858	71	74
Rice beer and other fermented liquor shops.	204	205	—	—
Opium shops - - - - - -	20	20	12	14
Licit opium consumed in maunds -	1,326	1,603	128	133

The large increase in the sales of opium were accompanied by a considerable fall in the sums paid for opium licenses. After the close of the year the sale of opium to, and possession of opium by, Burmans and Karens were prohibited; and the issue of opium to licensed vendors, in both Lower and Upper Burma, is restricted to the quantities likely to be consumed

Excise. consumed by the classes still permitted to use opium. Special vigilance is to be exercised against the smuggling of opium from outside. It is reported that "according to the general opinion of district officers the taste for opium and liquor is not spreading among the Burmese of the upper province." No attempt has been made to stop the cultivation of opium in the Kachin and Chin highlands, where it is largely consumed by the local tribes; the people have been warned against smuggling the drug into Burma. The manufacture and sale of fermented liquor is free among these and kindred hill races.

Prosecutions under the excise and opium laws fell from 3,346 to 3,178; and 2,440 persons were convicted. In the Arakan divisions most of the convictions were for illicit dealings in opium, and several gangs of smugglers were put down. The number of illicit stills detected in the Irrawaddy division fell from 57 to 32 during the year. In Upper Burma, 749 offences against the excise laws, of which 375 were opium cases. The number of illicit stills suppressed was 43, as compared with 70 in the previous year.

Central Provinces. In the Central Provinces the excise receipts of the past three years have been as follows:—

Receipts from	1890-91.	1891-92.	1892-93.
	Rx.	Rx.	Rx.
Country spirits	164,519	173,447	175,525
Opium	93,016	97,967	96,137
Ganja	21,996	23,669	26,335
Toddy	1,989	1,882	2,882
Miscellaneous	6,743	2,832	2,733
TOTAL	288,263	298,507	302,394

The greater part of the country is supplied with spirits from out-stills, of which there were licensed 1,959 at the close of the year; besides 15 central distilleries and five contract stills. The only change on the previous year's figures was that 32 out-stills were closed; the area supplied by central distilleries and by out-stills have been respectively increased and reduced by 1,521 square miles. At contract stills a fixed daily fee is levied on each still actually in use, and care is taken that no still is used on any day for which the prescribed fee has not been paid. At out-stills the restrictions on manufacture of spirit are the limitation of the number of shops to be supplied, and the limitation of the number and size of the vessels used for distillation. Most of the spirit consumed is about 60° below proof. The duty ranges from 12 annas on liquor 45° below proof, to 3 rupees a gallon on proof spirit.

The receipts on account of country spirits, so far as they can be distinguished, were in round numbers as follows:—

	Rx.
From central distilleries	53,000
„ contract stills	4,000
„ out-stills	117,000

The number of licensed retail liquor shops had been reduced in the previous year to 6,882, and 90 more shops were closed during the year, whereby the total was reduced to 6,792; after the end of the year a further considerable number of shops were closed. No trustworthy information exists regarding the quantity or strength of the liquor made at out-stills, so no estimate of the total liquor consumption can be offered; at most of the shops in the interior the liquor is usually of very low alcoholic strength. The material from which liquor is distilled is everywhere the flower of the mhowa tree. The number of licenses for the retail of imported liquors was 46, against 48 in the previous year.

The

The number of shops licensed for the sale of opium and its compounds was reduced during the year from 1,161 to 1,133; and the quantity of Government opium sold to the licensed vendors fell from 639 maunds to 633 maunds. The orders prohibiting the consumption of opium or drugs on the premises of licensed shops are strictly enforced, and are expected to be beneficial. The amount of opium supplied on payment to feudatory chiefs and zemindars, decreased from 171 maunds to 155 maunds. The number of shops licensed for the retail sale of ganja and its compounds was 1,047, or seven less than in the preceding year; the quantity of ganja passing into consumption rose from 1,156 to 1,194 maunds; while the quantity sold to feudatory chiefs increased from 241 to 273 maunds. Excise.

There was a decrease of 54 in the number of prosecutions under the excise laws, and an increase of six in cases under the opium laws. Out of 408 cases under the Opium Act, 270 were for the possession of smuggled opium; but the number of cases in which more than 20 lbs. of smuggled opium was found was only two in all. Out of 547 prosecutions under the Excise Act, 54 were for the illicit distillation of spirits, and 236 for illegal possession of spirits.

The excise demand of Assam for the year 1892–93 and previous years was distributed thus:— Assam.

Receipts from	1890–91.	1891–92.	1892–93.
	Rx.	Rx.	Rx.
Country spirits	34,298	35,126	38,499
Imported liquors and rum	3,391	3,598	3,524
Opium and its compounds	180,273	190,205	187,521
Ganja and its compounds	27,244	28,671	30,712
Miscellaneous, including Toddy, &c.	302	863	600
TOTAL	245,508	259,163	260,863

The whole revenue of the year was collected with the exception of a small arrear of Rx. 15 in two districts. The revenue from country spirits is raised entirely under the out-still system; the sites of shops are fixed; the right to have one still, and to sell spirits at each shop, is sold annually by auction. The number of licensed retail shops for country spirits was 192, against 194 in the previous year. Much of the liquor is weak; it sells at from six annas to one rupee per quart bottle. The number of retail shops licensed to sell rum was 31 against 38 in 1891–92; this rum is sold at from one to two rupees per quart bottle. The quantity of rum distilled in the provinces rose from 7,457 gallons to 10,402 gallons; while the imported rum fell from 10,796 to 3,447 gallons; there was a net decrease of 4,404, or 23 per cent. in the consumption of the year. The number of shops licensed for the sale of foreign liquors, including licenses on board steamers, was 89, or 11 less than in the previous year. The total consumption of foreign spirits in Assam was 15,456 gallons, showing an increase of 20 per cent. compared with the previous year. For toddy three licenses, and for rice-beer 11 licenses were issued. The number of licensed ganja shops was 272, or 10 less than in the previous year; and the quantity of ganja disposed of during the year was 687 maunds, against 791 in the year 1891–92; ganja is consumed chiefly in the two districts of the Surma valley. Opium continues to yield three-quarters of the total excise revenue of Assam. The number of licensed opium shops has been gradually reduced from 1,283 in the year 1883–84 to 953 in the year 1891–92, and to 866 in the year 1892–93; while the quantity of licit opium consumed was 1,333 maunds, against 1,369 maunds in the preceding year, and 1,494 in the year 1889–90. The number of shops licensed for the sale of madak and chandu, preparations of opium, was reduced from 24 to 16 during the year.

Excise.

The number of prosecutions under the excise and opium laws rose from 456 to 754, and convictions were obtained against 84 per cent. of the accused persons. Nine cases of unlawful cultivation of the poppy and 47 cases of unlawful cultivation of ganja came to light; 61 cases of illicit manufacture and sale of spirits were prosecuted. Most of the other cases were of trifling character; and the only four cases of opium smuggling were reported during the year.

Madras.

The excise revenue of Madras during the last three years was raised thus:—

Receipts from	1890-91.	1891-92.	1892-93.
	Rx.	Rx.	Rx.
Country spirits	571,921	545,023	524,829
Toddy and spirits combined	7,167	4,869	2
Toddy alone	517,637	549,668	576,616
Foreign liquor and miscellaneous	38,031	36,643	40,600
Opium and other drugs	72,353	68,679	69,695
TOTAL Rx.	1,207,109	1,204,882	1,201,742
Add,— Customs Duties on imported liquors	95,703	102,474	102,302
GRAND TOTAL Rx.	1,302,812	1,307,356	1,304,044

Duties on country spirits are raised under the central distillery system over the whole presidency, except in Malabar, Ganjam, Godavery, Vizagapatam, and parts of two other districts. In these exceptional tracts, which contain a population of five millions, or one-seventh of the presidency, the farming system obtains. Shop licenses are sold by auction in all the towns, and in most of the rural circles. Over a gradually increasing area a tree tax is imposed on all palm trees tapped for toddy, while the shops for retail sale of toddy are sold by auction to the highest bidder. The rates of stillhead duty range from 4¾ rupees a gallon on proof spirit to ¾ of a rupee per gallon on spirits 60° under proof; while the total taxation, including license fees, ranges from 2½ rupees to 7½ rupees per gallon of proof spirit in the several districts. In the districts where a farmer holds the exclusive privilege of distilling, the duty is from 2½ to 4 rupees a gallon for proof spirit. Much of the spirit consumed in the Madras presidency is made from sugar at large distilleries worked with modern appliances. The number of licensed retail spirit shops was reduced from 17,736 in 1888–89 to 11,974 during the year 1892–93; the licenses for the sale of foreign liquors were 693 against 741 in the preceding year. The quantity of foreign spirit imported into Madras was 180,083 gallons, or 522 gallons less than in the previous year. The total quantity of licit spirits issued from the distilleries, reduced to London proof strength, was 879,149 gallons against 928,023 gallons in the preceding year 1891–92. There was thus a decrease of about 6 per cent. in the consumption.

The number of licensed toddy shops was 18,755 in 1892–93 against 26,180 in the year 1888–89. The number of licensed shops for opium and its preparation was 1,030, besides 246 shops licensed for the sale of other narcotic drugs. The total quantity of opium consumed rose from 66,083 lbs. in the year 1891–92 to 72,907 lbs. in the year 1892–93. The consumption of ganja and bhang was 1,667 maunds.

The total excise revenue of Madras fell on the population at the rate of about 5½ annas per head in all. The number of persons prosecuted for offences against the excise laws was 24,255 against 20,645 in the previous year, and 97 per cent. of those tried were convicted. The number of reported cases of illicit distillation and possession of illicit spirits rose from

1,755 to 1,853, while the reported cases of illicit manufacture of toddy increased from 11,957 to 14,834. The increase in the number of excise offences is ascribed to the energy of the preventive staff, and to the extension of the tree tax system for toddy. Excise.

In the Bombay presidency the central distillery system obtains nearly everywhere, and the area over which the outstill and farming systems prevail consists of two comparatively uncivilised tracts in the Panch Mehals. In several of the minor Native States the British system of excise management has been adopted; in some others the chiefs have engaged to manage their excise affairs so as to avoid competition with British excise arrangements. The main peculiarities of the Bombay system are, that spirit must be sold of specified maximum or minimum alcoholic strength; and that in some districts a tax is imposed on every toddy tree that is tapped for its juice. In the Bombay presidency spirits are distilled from fermented mowra (or mhowa) flower and from fermented toddy, or juice drawn from incisions in the trunk of three or four species of palms. The general fiscal results of the excise management of the last two years were:— Bombay.

Receipts from	1891-92.	1892-93.
	Rx.	Rx.
Locally-made liquors, including toddy	852,794	877,241
Licenses on foreign liquors	11,072	11,202
Opium	105,105	92,733
Intoxicating drugs	29,811	30,804
Miscellaneous items	14,906	8,344
TOTAL EXCISE - Rx.	1,013,688	1,020,324
Import duties on liquors for Bombay and Sind	239,967	231,941
TOTAL REVENUE - Rx.	1,253,655	1,252,265

The rate of still-head duty ranges from four rupees to one rupee per gallon of London proof spirit; and the average over the greater part of the presidency is about three rupees per gallon.

The number of licensed shops in Bombay and Sind during the past four years is returned at,—

	1889-90.	1890-91.	1891-92.	1892-93.
For—				
Country spirit	2,993	2,960	2,930	2,863
Toddy	2,093	1,873	1,803	1,793
Drugs other than opium	1,309	1,312	1,241	1,253
Opium	1,281	1,283	1,248	1,162
Imported liquor	471	479	475	412

There were no changes of system during the year; but rates of still-head duty were enhanced in Bombay city and in some districts of the interior; the rates of tax on toddy trees were also enhanced in four districts of Guzerat and the Konkau. The increase of revenue on country spirits accrued chiefly in Sind, Guzerat, Thana, and Khandesh; and was attributed in part to the satisfactory character of the season. The total consumption of excised country spirits in the presidency proper has been 2,572,900, 2,525,000, 2,457,000, and 2,576,000 gallons of spirit, 25° under London proof during the past four years; so there has been no great increase. The

Excise.

consumption of opium in British Districts fell to 1,550 maunds in 1892–93 from 1,715 maunds in the previous year and 1,837 maunds the average of the three years 1889–90.

Berar.

In Berar the excise revenue demand of the last three years has been as follows :—

	1890-91.	1891-92.	1892-93.
	Rx.	Rx.	Rx.
Country spirit	128,850	138,309	138,637
Opium and drugs	30,723	30,080	26,497
Toddy	4,596	4,568	4,591
Foreign liquors	165	180	185
Total	164,334	150,902	152,251

The revenue on country spirits was still raised by selling annually at auction the monopoly of the spirit trade in the 68 circles into which the province was divided, but considerable changes of system were introduced into two districts from the 1st April 1893. The uncollected revenue at the end of the year was Rx. 4,782 against Rx. 1,751 at the beginning. The number of shops licensed for the retail sale of country spirits was 1,122, as in the previous year, and for imported liquors 19 against 18. The number of licensed toddy shops remained unchanged at 973. The number of licensed opium shops was reduced to 478 from 585 in the previous year, and the quantity of opium consumed fell to 460 maunds against 472 in the previous year and 515 maunds in the years 1889–90. The number of licensed ganja shops fell from 586 to 484, and the quantity of ganja consumed from 530 maunds to 437 maunds. Prosecutions under the excise law rose from 57 to 73, and under the opium law from 117 to 137. There were five prosecutions for smuggling opium, and several ingenious attempts to smuggle the drug were frustrated.

STAMPS.

Stamps.

The stamp revenue is leviable under Act VII. of 1870 (the Court Fees Act), which imposes fees on plaints, petitions, and other documents filed before civil, criminal, or revenue courts, and under Act I. of 1879 (the Stamp Act), which imposes duties on commercial transactions recorded in writing, such as conveyances, bonds, cheques, bills of exchange, receipts, and the like. The following table gives the receipts and charges, province by province, for the year 1892–93 :—

	Bengal.	North Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	India, General.	Madras.	Bombay.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Sale of court fee stamps	1,119,393	541,025	256,631	95,715	119,378	57,124	29,598	454,325	322,180	2,995,369
Sale of commercial and other stamps.	431,441	172,256	149,326	57,184	49,159	24,065	22,634	271,496	196,639	1,374,200
Fines and miscellaneous	3,750	1,975	4,428	2,590	494	3:7	472	10,628	54,297	78,971
TOTAL Stamp Revenue of 1892-93 Rx.	1,554,584	715,256	410,385	155,489	169,031	81,526	52,704	736,449	573,116	4,448,540
TOTAL of 1891-92 Rx.	1,510,046	693,518	406,930	132,398	169,503	82,083	48,087	674,757	544,834	4,262,156

The refunds of the year were Rx. 53,744, and the charges of collection came to Rx. 141,264. There was an increase in revenue of 4½ per cent. as compared

compared with an increase of 5 per cent. in the previous year, for the whole of India. Court fees still yield rather more than two-thirds of the whole stamp revenue, and general stamps yield something under one-third. The increase in the year 1892–93 accrued under both classes of the stamps; but increase in the receipts from commercial stamps has for some years been proportionately larger than under court-fees. The increase was notably large in both Upper and Lower Burma. In nearly every province there was the usual advance in the revenue from general or commercial stamps; but in some provinces, especially the Panjab, there was a decline in the revenue from judicial stamps. STAMPS.

CUSTOMS.

No change in the tariff was made during 1892–93. It will be seen from the following statement of the gross realizations from import duties that there was an increase under each main head. CUSTOMS.

GROSS RECEIPTS FROM IMPORT DUTIES.

	Arms, Ammunition, &c.	Liquors.	Opium and Miscellaneous.	Petroleum.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.
1887–88 - - -	22,370	527,792	255	13,709	564,121
1889–90 - - -	23,866	559,265	285	162,392	745,808
1891–92 - - -	—	—	—	—	—
1892–93 - - -	31,162	610,253	456	202,309	844,174

The gross receipts from export duty on rice fell from Rx. 881,957 to Rx. 743,356. The total net customs revenue, excluding receipts on salt, was Rx. 1,558,000, as compared with Rx. 1,654,000 in the year 1891–92, and Rx 1,608,000 in the previous year.

PROVINCIAL RATES.

Provincial rates are levied for the most part on the land. They are imposed under the law to meet charges for local roads, local schools, local sanitary work, local postal arrangements, and in some provinces for village police. In the temporarily settled provinces the rates take the form of a percentage on the land revenue, and the revenue payers and tenants have to pay that percentage in addition to the land revenue. In Bengal the cesses are levied by a rate upon the rental, and are payable partly by landlord and partly by tenant. The net receipts under this head were Rx. 3,698,649 in the year 1892–93, as against Rx. 3,497,000 in the preceding year; nearly one-half of the whole pertains to the provinces of Bengal and Madras; in the latter province the system of local funds and local administration has been carried out successfully for many years. In Bengal about half of the rates belongs to the Provincial Government; in the North Western Provinces nearly one quarter is similarly credited; in other provinces the whole, or almost the whole, of the provincial rates income is spent on local objects by local bodies. The provincial rates increase with the land revenue, and in Bengal the road cess may be increased by votes of the district boards within the legal maximum, or by alteration in the periodical valuations of the rental. The provincial rates are collected punctually with the land revenue and by the same agency. PROVINCIAL RATES.

PROVINCIAL RATES.

The following is a table of the rates and cesses collected during the year :—

	India, General.	Bengal.	Assam.	North-Western Provinces and Oudh.	Punjab.	Central Provinces.	Burma (Lower).	Madras.	Bombay.	TOTAL.
REVENUE.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
District Local Fund:										
Cess on Land for expenditure on Roads, Schools, Hospitals, and general purposes.	2,076	409,531	54,950	455,490	221,382	31,472	102,082	515,762	265,528	2,058,273
Provincial:										
Cess on Land for expenditure on Roads, Schools, &c.	—	419,526	—	32,972	—	351	—	—	—	452,849
Cess on Land for Famine Assurance, Canals, and Railways.	—	—	—	170,059	55,289	14,814	—	—	—	240,162
Cess on Land for District Post - - -	—	43,741	—	3,663	—	3,785	—	—	—	51,189
Cess on Land for Village Service and Patwaries.	3,256	—	—	236,092	128,768	45,718	—	390,742	36,396	840,972
Assessment on Wards' Estates for Establishment Charges.	—	7,668	—	—	2,917	3,357	—	—	—	13,942
Miscellaneous - - - - - - -	2,090	—	—	40,255	600	—	—	6,166	—	49,111
TOTAL Receipts - - -	7,422	880,466	54,950	938,531	408,956	99,497	102,082	912,670	301,924	3,706,498
Refunds - - - - - - -	—	1,485	17	1,393	484	48	46	2,758	1,618	7,849
Net Receipts, 1892–93 - - -	7,422	878,981	54,933	937,138	408,472	99,449	102,036	909,912	300,306	3,698,694
Net Receipts, 1891–92 - - -	6,949	849,708	54,783	937,306	398,866	99,983	99,776	746,512	303,491	3,497,374

INCOME TAX.

INCOME TAX.

General.

There was no change in the Income Tax Law [Act II. of 1886] during the year, or in the rate at which the tax was levied. The principal provisions of the Act are, that incomes derived from salaries, pensions, and interest on securities, if amounting to Rs. 2,000 per annum, should pay five pie in the rupee (2·6 per cent.), and if less than Rs. 2,000, four pie in the rupee (about 2 per cent.); that companies should pay five pie in the rupee on their net profits; and that income derived from other sources should pay, according to a graded scale from Rs. 10 on Rs. 500 to Rs. 42 on Rs. 1,999, the tax on incomes of Rs. 2,000 and upwards being five pie in the rupee. All incomes of less than Rs. 500 a year are exempted, and the tax is not levied on profits or incomes derived from agriculture (which are otherwise taxed under legislation imposed in 1877–78), or on military salaries of less than Rs. 500 a month.

The receipts and charges on account of income tax in each province were as follows :—

	Gross Collections.	Refunds.	Net Receipts.	Charges for Assessment and Collection.
	Rx.	Rx.	Rx.	Rx.
Bengal - - - - - - - -	429,855	5,260	424,595	18,409
North-Western Provinces and Oudh -	231,712	2,109	229,603	1,880
Punjab - - - - - - - -	134,953	892	134,061	1,111
Burma - - - - - - - -	76,473	426	76,047	1,705
Central Provinces - - - - -	41,507	473	41,034	52
Assam - - - - - - - -	23,632	43	23,589	107
India, General - - - - -	148,340	906	147,434	98
Madras - - - - - - - -	202,844	1,560	201,284	1,741
Bombay - - - - - - - -	388,171	3,946	384,225	5,068
TOTAL, 1892–93 - - -	1,677,487	15,615	1,661,872	30,171
TOTAL, 1891–92 - - -	1,652,823	14,726	1,638,097	29,577

The

The taxable minimum of income is lower than in the United Kingdom; but the average of earnings and of the cost of living is also much lower in India. The total assessment represents, in round numbers, a taxable income of Rx. 65 millions from securities, companies, trades, and professions; and this total, though not in all respects comparable, is small by the side of the total annual value of 413 millions assessed to income tax under Schedules C., D., and E. of the British Act during the year 1890. The contrast is the more marked because the population of British India is nearly six times as great as that of the United Kingdom. About three-fifths of the whole income tax revenue is paid by the provinces of Bengal and Bombay. A very large share is in each case contributed by the presidency town; Calcutta yielded one-half of the whole income tax levied in Bengal, though it contains less than 1 per cent. of the population of the province; and Bombay city, with a population of 800,000, paid Rx. 172,000 of income tax on trades and professions, as compared with Rx. 125,000 on trades and professions paid by the rest of the presidency, with a population of 18 millions, and as compared with Rx. 50,000 paid on Government salaries and interest on Government securities. From most provinces it is still reported that the income tax is an unpopular form of taxation; but the objection is rather against the levy of such a tax at all, and against the taxable minimum being as low as Rx. 50, than against the manner of its working. The proportion of income tax paid by official salaries and pensions continues to be high everywhere in comparison with the total receipts. The large number of objections against assessments, and the considerable proportion of successful objections, go to show that the persons assessed are ready and able to defeat attempts at excessive taxation on the part of assessors. The objections are almost entirely against assessments on trade and professional incomes under Part IV. of the Income Tax Schedule. INCOME TAX.

In Bengal the number of objections against assessments was 11,640, as compared with 12,388 and 15,027 in the two previous years; about 36 per cent. of the objectors were more or less successful, as in the previous year; and the final demand was 3 per cent. below the original assessments, the same proportion as in the previous year. In about two per cent. of the 103,894 assessments property was distrained, and in one-third per cent goods were sold for the realisation of the tax. The total receipts in Bengal showed a decrease of 1·8 per cent., as compared with 1891–92. Provincial details.

In the North-Western Provinces and Oudh, out of 66,393 assessments the number of objections was 21,013; 31 per cent. of the objectors were in some degree successful, the same proportion as in the previous year; and the final demand was 5 per cent. below the original assessment, as in 1891–92. Notices of arrear were issued in 4,363 cases, and in 753 cases further coercive measures had to be taken against defaulters; in 193 cases attached property had to be sold for arrears. The total receipts showed an increase of 1·5 per cent over the previous year. The number of persons assessed was 1½ per mile of the whole population. Of the whole tax 77 per cent was paid by trades and professions.

In the Punjab the number of objections against 42,948 assessments under Part IV. was 11,181, of which 37 per cent. were successful, being the same proportion as in the previous year; and the final demand was 5⅓ per cent. below the original assessment, as compared with 7 per cent. in 1891-92. Rx. 719 of the year's demand were uncollected at the end of March. The total receipts in the Punjab showed an increase of 2¼ per cent. on the receipts of the previous year, the increase being mainly under Part IV., namely assessments on trading and professional incomes. More than 20 per cent. of the whole collections accrued on salaries and pensions. The number of coercive processes issued against was considerably smaller than in the previous year.

In Burma the income tax was applied to all Government servants and to 46 towns in the lower province; income taxpayers were exempted from capitation tax. In the year 1892–93 the number of objections preferred against 12,905 assessments under Part IV. was 3,862, of which 62 per cent. were more or less successful; and the final demand was 9 per cent. below the total of the original assessments. In 729 cases warrants were issued against defaulters, as compared with 2,161 in 1891–92. Of the whole income

INCOME TAX.

tax revenue in Burma in 1892–93, 55 per cent. was paid on salaries, pensions, and profits of companies. The total receipts of the year 1892–93 were Rx. 4,000, or 6 per cent. larger than in the previous year.

In Assam the yield of the tax was 1 per cent. less than in the previous year. The number of objections was 1,372, against 5,543 assessments under Part IV.; 572 objections were successful in whole or in part; and the final demand under Part IV. was 10 per cent. below the original assessment. Processes for the realisation of arrears increased 14 per cent.; but in only 10 cases was the property of defaulters sold for arrears, against 16 in the previous year. The proportion of collections on salaries and pensions under Part I. paid by Government was 18 per cent.; on salaries paid by companies under Part II. it was 37 per cent.; and on trades and professions under Part IV. it was 42 per cent.

Against 54,334 assessments in Madras 21,379 objections were preferred, of which 32 per cent. were more or less successful, and the final demand was 8½ per cent. below the original assessments, as against 7½ per cent. in the two previous years. Of the total number of assessments 91 per cent., and out of the total demand 51¾ per cent., were on account of incomes below Rx. 200 a year. In 29,765 cases notices had to be issued against defaulters, but in only 160 cases was any property sold or further action taken on account of arrears. Only ·5 per cent. of the revenue due remained unrealised when the report for the year was submitted. The demand for the year showed an increase of 7½ per cent. over that for 1891–92; nearly the whole of the increase accrued under Part IV. (Commerce and Trade) of the Act; and 69 per cent. of the total demand came under that part. The assessments fell at the rate of one in 529 on the whole population.

In Bombay the number of persons originally assessed to income tax was 8,192; from 13 to 31 per cent. of the persons assessed in different parts of the presidency objected to the assessments; from 3·4 of the objections in Sindh to 5·4 of the objections in Bombay city were successful; and the final assessments were Rx. 319,000, against original assessments of Rx. 335,000.

Of the total increase Rx. 10,270 accrued in Bombay city, and Rx. 5,199 of this was due to the large profits made by the railways on the great wheat traffic of 1892. In Bombay city, notwithstanding a serious depression in trade and great fluctuations of exchange, there was a decrease of only Rx. 800 in the collections under Part IV. (Commerce and Trade) of the Act. In all divisions of the interior of the presidency the collections showed some increase over the previous year. Almost the whole of the tax was collected without difficulty.

CHAPTER VI.

SURVEYS AND SETTLEMENTS.

THE work of "The Survey of India" is divided under five heads, namely :— SURVEYS AND SETTLEMENTS.

1. Trigonometrical Survey.
2. Topographical Forest Survey.
3. Cadastral Survey.
4. Special Surveys and Explorations.
5. Map Productions.

The account given below of progress under heads one, two, four and five relates to the work of the season 1891-92.

Out of 21 survey parties, and six small survey detachments, employed during the year, only one party was engaged on trigonometrical work. Triangulation was effected in Upper Burma for a distance of 195 miles and over an area of 4,300 square miles; nine principal triangles were completed, and seven principal stations were newly fixed, besides six stations in the secondary series that were begun. It was found that the latitude and longitude of Mandalay, which had been previously determined by Major Hobdoy's astronomical observations, were wrong by 3.5″ in latitude, and 1.2″ in longitude, an extremely small error. Trigonometrical.

Three parties, and two detachments, were engaged on topographical work, and accomplished in all 9,909 square miles of topographical survey, as against 10,193 in the preceding year. Party No. 10 completed 1,692 square miles of survey in the southern Mahratta country, and 841 square miles in Guzerat, of which province the survey was completed; in both tracts parts of the area were mountainous and clad with forest. Party No. 15 effected a detailed reconnaissance for a line of railway communication between Kurrachee and Kharan; another carried the triangulation of the Mekran series to the borders of Persia, following the 26th parallel of north latitude; while the third and fourth section effected topographical surveys of small special areas, and brought up arrears of map work. The total out-turn by the party was 12,418 square miles of triangulation, 19,084 square miles of geographical survey, and 629 square miles of topographical work. A detachment effected 765 square miles of topographical survey in the tin-bearing lands of Mergui to the south of Burma, besides making surveys of 81 separate tin mines. A second detachment effected the triangulation of 7,000 square miles, and a topographical survey of 4,426 square miles of country behind Aden; the area is roughly a semi-circle, with a radius of about 70 miles, described with Aden as a centre, and extends from the coast to the borders of Turkish Arabia. Party No. 18 surveyed 245 square miles of State forests in the district of Kangra, and 284 square miles in the Native States attached to the Simla district. Topographical.

Four parties were, as in the previous year, employed in mapping the forest reserves. Party No. 14 carried on surveys in the Hoshungabad and Nimar forests of the Central Provinces; they completed 483 square miles of detail survey, including classification of soils and forest growth. Party No. 17 was engaged in the reserved forests of the Poona, Thana, Sholapar, Kolaba, and North Kanara districts of Bombay; 437 square miles of detail survey were accomplished, the short out-turn compared with the preceding year being partly due to a severe outbreak of fever among the staff. Party No. 19 was engaged in the forest reserves of Coimbatore, Madura, and Tinnevelly; 659 miles of detailed survey were accomplished, a larger out-turn than in any previous year; the cost per square mile came down to 97 rupees, against 112 rupees, and 162 rupees in previous years. Party No. 20 effected the survey of 294 square miles of reserved forests in the Toungoo district of Burma. Detachments surveyed 327 square miles of forest in Jalpigoree, and 45 square miles in the Simla Hill States. The whole area of forest surveys accomplished by all these parties during the year was 2,245 square miles, against 1841 square miles in the previous year.

Cadastral Survey.

The work of the cadastral and traverse survey parties is noticed below under each of the provinces where they were employed.

SURVEYS AND SETTLEMENTS.

Geodetic

The geodetic work of the year consisted of the measurement by electro-telegraphic observations of six longitudinal arcs in northern, central, and southern India. The Surveyor General reports that this work has now been completed for continental India. Similar work for Burma and Baluchistan can be undertaken at some future date.

Map printing.

The demand for and the production of maps by the Survey of India continues steadily to increase. The number of new maps published during the year was 7,532, of which 4,956 were cadastral maps. In all 853,947 copies of maps and plates of different kinds were printed off during the year, besides 1,318,597 impressions from type. Among notable new maps of the year were an elaborately coloured geological map of India; a coal map of India; and various new railway maps.

Tidal and levelling operations.

The recording of tidal curves by self-registering tide gauges, their reduction, and the publication of tide tables were continued during the year at 14 stations, of which six are permanent and eight are temporary for five years. Two old stations were closed, the five years' observations having been completed; and no new ones were opened during the year. At five tidal stations personal observations were taken daily, to compare actual heights and times of high and low water with those predicted in the published tide tables. The total number of ports treated since 1877, for which tide tables are issued, is 31. The Port Blair self-registering station was destroyed by a cyclone, but was re-established within three months. So far as predictions of high water were concerned, 94 per cent. of the entries in the tables were correct within eight inches of actual heights at open coast stations, and 66 per cent. at riverain stations; while as to time of high water, 76 and 68 per cent. respectively of the entries were correct within 15 minutes. All the observatories except Kurrachee were inspected during the year; and steps were taken to introduce improvements at nine stations.

Levelling operations were prosecuted from Malkhed on the Great Indian Peninsula Railway to Nagpore, thence to Bilaspur on the Bengal-Nagpur Railway, and on to Sakti. There were 452 miles of double levelling accomplished; while the heights of 529 permanent bench marks and 12 stations of the Grand Trigonometrical Survey were determined. This work was considerably more than the previous season's out-turn. The heights previously determined by the Public Works Department were found to be 4½ feet below the true level of 1,025 at Nagpore, one foot below the true level of 999 at Raipur, and 2 feet below the true level of 872 at Bilaspur.

Explorations.

Parties Nos. 11 and 21 continued their geographical surveys in Upper Burma; and sent detachments with various expeditions or political missions that traversed parts of Burma or the adjacent regions. They surveyed on the 1 inch to the mile scale 42,077 square miles in the Upper Chindwin, Yeu, Ruby Mines, Bhamo, and Katha districts, and in the Shan States, Karenni, and the Hukong Valley. Another season will probably see the close of the first survey in Upper Burma, as few gaps are now left in its topography; work with boundary commissions and with expeditions on the frontier or among hill tribes will however remain to be done.

Marine Survey.

The survey vessel "Investigator" with one boat party was employed on marine surveys throughout the open season of 1892-93, the staff being employed in the Chart Office during the rainy months. The principal coast survey work was off the Laccadive and Minikoy Islands, in the Bombay harbour, and on the east coast from the neighbourhood of the Kistna to Pennair. The 20-fathom line was in places at a distance of 22 miles from the shore, and a very large amount of sounding and buoy-shifting was needed. Several new shoals were found and marked; the beacon off Pennair had disappeared with the island on which it stood; and the river mouth had shifted northward greatly, since the date of the previous survey in 1848. The naturalist's report mentions some interesting results of several hauls of the deep-sea trawl off the Malabar and Coromandel coasts; the deepest was at 753 fathoms; but the more remarkable specimens were from hauls of 475 and 559 fathoms at longitude 72 degrees and 81 degrees respectively, and at latitude 150 degrees in either case.

During

During the year 1892–93 meteorological observations were recorded at 174 stations, stretching from Bagdad and Aden on the west to Dibrogar, Bhamo, on the east, and from the Peshawur border on the north to Galle in Ceylon, the Nicobar and Minicoy Islands, and Mergui on the south. The principal new observatories of the year were in the Native State of Mysore, in Burma, on the Thibet border at a point 11,500 feet above the sea, in the Shan States, and at Teheran and Ispahan on the Indo-Persian telegraph line. Arrangement was also made for reports of snowfall from Kabul and places in the Himalayas. Of the 174 observing stations;—

Four were observatories of the first class, where autographically registering instruments are kept to record rainfall, barometric, and thermometric readings, humidity, wind force and solar-actinometric observations.

Sixty-three were second-class stations, where less frequent observations are recorded.

One hundred and seven were third-class stations which record twice a day the rainfall, the thermometric maxima and minima and the range of the barometer.

These observations are communicated in some cases by telegraph to the head-quarters of the Meteorological Department, the chief officers of which are responsible for inspecting observatories and stations, so that instruments may be kept in good order and observations may be faithfully recorded; the Department also undertakes the publication of storm warnings, seasonal forecasts, and periodical compilations of meteorological results. Besides the data furnished by the observatories described above, returns are kept of the rainfall at 2,049 stations; and the Meteorological Department examined and tabulated during 1892–93 the observations in 954 logs of vessels entering Calcutta and Bombay.

The forecast of the probable rainfall for 1892 was founded mainly on information regarding the snowfall on the mountain region to the north and north-west of India, on the distribution of barometric pressure in India and over the Arabian Sea during the month of May, as compared with the meteorology of previous years. The forecast predicted a rainfall below the average in parts of Southern India, in Rajputana, and in Eastern Bengal, and on the Kathiawar coast, but a nearly normal rainfall elsewhere. It is claimed that the actual rainfall showed a fair, and on the whole a satisfactory, agreement with the forecast, excepting that the rainfall was unusually heavy in West Bengal, Western Rajputana and Sind. The average and actual rainfall from June to October in the 12 regions into which India has been divided were as follows:—

Name of Province or Tract.	Actual Rainfall of June to October 1892.	Average Rainfall for the Five Months.
	Inches.	*Inches.*
Burma	118	118
Assam and Bengal	57	57
North-Western Provinces and Oudh	36	34
Punjab (plains)	22	15
Rajputana and Central India	32	27
Central Provinces and Berar	52	44
Madras	35	27
Bombay (North)	31	25
Bombay and Malabar Coast Districts	62	55

SURVEYS AND SETTLEMENTS.

The year was not a stormy one, only two severe storms were observed in the Bay of Bengal, one early in June, and one in the middle of October. The latter cyclone did great harm at Port Blair and then crossed rapidly over to Coconada on the Madras coast. Warning is said to have been given of all considerable storms that visited India or Burma during the year, and this part of the work gave satisfaction to the public; no warning to Port Blair of the October cyclone was possible. The system of flood warnings to canal officers was found to be useful; 162 such warnings were issued by the Meteorological Department during the year. The usual daily weather reports and charts, weekly weather reports published in the official gazettes, and the monthly weather report giving a summary of the weather and the variations from normal conditions, were published regularly.

The proportion of stations inspected and instruments verified by officers of the Meteorological Department was larger than in the preceding year. Forty-four observatories were found to be "satisfactory in every respect;" 18 were said to be "in good order"; and 11 were in an unsatisfactory condition.

Geological Survey.

The operations of the Geological Survey during the year 1892–93 were mainly confined to extra-peninsular India, more especially to the Panjab, Beluchistan and Burma. The examination of the rocks, the identification of fossils and strata, and the completion of the geological map were prosecuted and large gaps were filled in the provinces mentioned above.

The economic work performed by the survey during the year began with the examination of the various coal outcrops near Quetta, in the Harnai valley, and on the Khost side of Beluchistan. Further inquiry showed grounds for a more sanguine opinion than had previously been held of the future of coal in Beluchistan; a good deal of fair coal has been found at a workable level, near to the railway line; and probably much more exists in the neighbourhood, though the coal basin is much broken up by faults and folds, and the coal has in places been carried away by denudation. Parts of the salt range in the Punjab near the Dandot colliery were tested by borings and detailed survey, with the result that further coal was proved, with an available output of probably over a million tons, provided working can be carried to a sufficient depth along the dip. In the Tenasserim valley of Lower Burma further available supplies of coal were found; but the coal can be carried to the sea only by specially constructed barges in a shallow and difficult river, while a railway to these coal sources does not appear practicable. In Upper Burma, coal indications, gold sources and lead mines were investigated in parts of the Katha district. In Wuntho seven different places were shown where the natives used to dig for gold; but so far no workable reefs were found, though the geelogical surveyor reported that gold had in past times been cleverly worked by the people from the débris of quartz infiltrations into the schistose rocks. No trace was discovered of any quartz having been pounded up for gold washing. In the Pinlebu subdivision a considerable quantity of coal was available; but it was situated 32 miles from the nearest railway station, and for the present cannot be successfully exploited. In the same locality large deposits of lead ore were found, yielding on assay 69 per cent. of lead; it had been worked to a considerable extent by the Shans in former years.

SETTLEMENTS AND CADASTRAL SURVEYS.

SETTLEMENTS AND CADASTRAL SURVEYS.
General

The term "Settlement" is applied in Indian revenue affairs to the process of assessing the land revenue demand. Occasionally in newly acquired or specially backward tracts, the land revenue is assessed for a short term of years on a general review of the circumstances and capabilities of the land and people concerned; such a process is called a summary settlement. But a regular settlement is a more complicated affair, and consists of many stages. In the first place every separate estate or holding is demarcated by permanent marks on the ground; and disputes between neighbouring right-holders are investigated and decided. Every estate or holding is then surveyed and mapped, all boundary marks, wells, and buildings being shown on the field or cadastral maps. Sometimes these field surveys and maps are made by trained professional

professional surveyors belonging to the Survey department. When the field surveys are made by local or village surveyors, such agents are trained by, and their work is independently tested by, professional surveyors. The work of the professional survey, whether cadastral maps or traversing, rests on, and is checked by, the independent scientific work of the Grand Trigonometrical and Topographical Surveys. After the field maps are prepared, the next process is to classify each field according to its productive value, as evidenced by its soil, by the amount of its produce, or by the rent it pays. A record is at the same time drawn up of all rents paid, and of all rights, whether landlord rights, or tenant rights, or rights of user, over all the ground, buildings, wells, and trees shown in the map. Then the assessing officer (or settlement officer, as he is often called) compiles the information obtained for all the lands in a circle of villages; and on a review of all these data, of the past fiscal history of the tract, of the range of prices, of the accessibility of markets, and of other general considerations, he proposes rent rates or revenue rates for the several classes of lands in the circle. In the determination of rent rates or revenue rates for any tract, the rainfall, the sub-soil water level, and irrigation facilities are important factors; but improvements made by the owners or occupiers themselves, are not held to enhance the assessable value of the land. The rent rates or revenue rates proposed by the settlement officer, and the grounds on which they were based, are then investigated by a superior officer, and are not adopted until they have been accepted or modified by him. SETTLEMENTS AND CADASTRAL SURVEYS.

In provinces where the zemindari tenure prevails, that is, where single proprietors or proprietary brotherhoods possess large estates of several hundreds or thousands of acres, the State revenue is assessed at an aliquot part (usually about one-half) of the ascertained or assumed rental. The revenue, though it is fixed with reference to acreage rates on the land actually cultivated, is assessed on, and is payable by, each estate as a whole; the assessment remains unchanged for the 30 years or other period of the settlement; the proprietor can bring as much as he likes of his waste or fallow land under the plough; and it is only on re-assessment at the end of the term of the settlement that the State obtains any increase of revenue on account of the extensions of cultivation during the settlement period. In provinces where the ryotwari tenure prevails, that is where each petty proprietor holds directly from the State, generally cultivates his own land, and has no landlord between himself and the Government, the revenue is separately assessed at an acreage rate on each petty holding, and land revenue becomes payable at once, or after a short term of grace in the case of uncleared lands, on all extensions of cultivation. The ryotwari proprietor is at liberty to throw up his holding or any portion of it at the beginning of any year after reasonable notice; the zemindar or large proprietor engages to pay the revenue assessed upon him for the term of the settlement.

After the revenue is assessed and the assessment is sanctioned, copies of the field map, of the schedule of fields, and of the record of rights are made; one copy is given to the proprietor; one copy is lodged in the district court-house; and usually a third copy is placed in the sub-divisional or tahseel office. Through the agency of the local officials of each village or circle the field maps and record of rights are corrected or written up year by year, so as to make them at all times faithful accounts of current rural facts and circumstances. When revisions of assessment are undertaken at the end of the settlement, the village maps and records serve, after adequate testings and corrections, as the basis for re-assessment; and in this way a re-settlement is a shorter and less costly affair, and causes much less harassment to the people than is involved in an original settlement. At the present time re-settlements have been practically completed in Bombay, and are being made in many districts of the Punjab, the North-Western Provinces, and the Central Provinces; also in parts of Bengal and Assam. Original settlements are still being prosecuted in Madras and Lower Burma, but are now finished in Sind. Re-settlement is beginning in Berar, and has begun in Oudh; while in Upper Burma the settlement of the land revenue has been begun.

In Bengal cadastral surveys and settlements were in progress in the three districts of Orissa, in Chittagong, in the Dooars, and on some hundreds of petty estates and plots in different parts of the province. In the temporarily settled Bengal.

SETTLEMENTS AND CADASTRAL SURVEYS.

districts cadastral surveys were effected over 2,775 square miles, at a cost of Rx. 16 per square mile. Field maps and records were completed for the Puri district, and are making progress in Cuttack and Balasdore; the total area as yet cadastrally surveyed in Orissa was 4,105 square miles, and the attestation of holdings had been completed over 1,512 square miles; no revised assessments had been framed by the end of the year. The total cost of the Orissa survey and settlement had reached Rx. 102,000 by the 31st March 1893. The settlement of Angul, which had formerly been a tributary State, was completed at a total cost of Rx. 19,100 for an area of 881 square miles; the increase of revenue (Rx. 2,685) due in 1892–93, the first year of the new settlement, was realised in full, and in only one case had any process to be issued for arrears. In Chittagong the work of attesting the records of holdings was in progress; altogether 2,605,827 holdings have to be recorded, of which three-fifths have been completed. On only one estate was the rental fixed before the end of the year. The cost of the Chittagong re-settlement and survey up to March 1893 had been Rx. 78,000. In the Dooars the settlement is approaching completion; the cadastral survey has cost Rx. 48 per square mile, and the operations had cost Rx. 49,500 up to the end of the year. So far as the latest reports show, the revenue of the tracts assessed has been increased by Rx. 8,300, or 61 per cent. The other settlements were mostly of a petty character; their cost was Rx. 7,196 during the year. The Board of Revenue report that the increase of the year 1892–93 on the Bengal land revenue demand, due to revision of settlement in tracts excluded from the permanent settlements, had been Rx. 21,000, instead of Rx. 19,700, as estimated at the end of the previous year.

North-Western Provinces and Oudh.

In the North-West Provinces and Oudh the re-settlement of the Mozuffarnagar district was finally closed, the cost being Rx. 26,500; the assessments sanctioned during the year yielded an increase of Rx. 6,600, or 19 per cent. on the previous demand. The re-settlement of Jhansi was finally completed after the close of the year, in January 1893; it had cost Rx. 20,300; the revised revenue of the whole district yields an increase of Rx. 6,400, or 13 per cent. on the old demand. In Gurhwal good progress has been made, and it was decided not to extend the costly cadastral survey to the wilder parts of this hilly region. The Kumaon re-settlement is nearly complete; the increase secured in the revenue demand will be Rx. 3,800, and the total cost of the work up to date was returned at Rx. 1,327. In the Unao district settlement work is making fair progress; revised assessments of six tracts had been framed, of which three were sanctioned during the year, yielding an increase of Rx. 6,577, or 18 per cent. on the previous demand; the total outlay to the end of the year was Rx. 14,900. In the Partabgarh and Rae Bareli districts the work of correcting the village papers and maps was pushed on during the year, and assessments for one tract were framed. In the districts of Budaon, Barabanki, and Sultanpore settlement work was begun in October 1892, after the close of the year noticed in this paragraph.

The rent-rolls for all districts of the North-West Provinces and Oudh show that the rental demand of the year 1890–91 was Rx. 12,016,000, out of which the landlords realised Rx. 9,751,000 during the year, besides Rx. 1,097,000 on account of arrears of previous years. The rent-rolls include only the reduced rents paid by privileged tenants, and include no computed rents on account of lands cultivated by proprietors. The cultivated area is approximately held thus:—

	N.W.P.	Oudh.
	Acres.	Acres.
By cultivating proprietors	6,100,005	962,122
„ privileged tenants	893,863	392,284
„ ryots with occupancy rights	10,805,858	257,457
„ tenants at will	8,887,239	7,366,276
„ rent free	434,105	283,715

If

If the rent rates paid by tenants at will were applied to the total area of the cultivated land the gross rental would amount to Rx. 15,337, or more than 2½ times the Government demand. SETTLEMENTS AND CADASTRAL SURVEYS.

No part of the imperial Survey Department was employed on revenue or cadastral survey in the Punjab during the year. In three districts, Hissar, Gurdaspur, and Ferozpur, settlement work was completed during the year; and settlements were in progress in parts of ten districts at the close of the year. As was mentioned in a previous Statement, the work is being done as expeditiously and economically as possible; and no general re-survey is attempted, though on some estates and on occasional tracts the existing field maps are so incorrect as to necessitate a fresh survey. Punjab.

In Lahore assessments have been completed and have been introduced into half the district; the work has lasted 4½ years, and has cost Rx. 30,200. In Amritsar the new assessments have been completed and have taken effect in two-thirds of the district; the enhancement was 32 per cent. on the old demand; and the new revenue was paid "without much difficulty, even though the harvests were poor;" the work had cost Rx. 25,000, and was nearly finished. In Sealkot assessments had been framed for two-fifths of the district; much work remained to be done, and the settlement had cost Rx. 25,000. New assessments have been completed in Gujrat and collected in part of the district; the work has cost Rx. 20,000, and has yielded an increase of Rx. 15,000, in the yearly revenue. In Gujeranwala the work is nearly completed; it has cost Rx. 25,000, and will yield Rx. 15,000 of enhanced revenue. In Kangra the settlement is nearly complete; it has cost Rx. 28,000, and has yielded an additional revenue of Rx. 9,700. In Shahpur the settlement is nearly complete and will have yielded Rx. 20,000 of enhanced revenue. In Montgomery, Peshawur, Dera Ghazi Khan, and Kohat the re-settlement was begun during the year.

In Lower Burma one party of the Imperial Survey was employed on the cadastral survey of the Amherst and other Tenasserim districts; this party effected 896 square miles of cadastral work, or 176 square miles more than in the preceding year. A second party was engaged on the topographical survey of Mergui. A detachment of this party effected also 610 square miles of topographical survey in the northern and 679 square miles in the southern districts of Tenasserim. The forest survey party completed 326 square miles of work in the reserved forests of Toungoo. The land revenue of part of the Amherst district, comprising 366 square miles, was settled during the year, with the result that Rx. 6,487 were added to the land revenue demand. The area under supplementary survey,—that is the area for which the field maps and records are tested and corrected yearly, increased from 14,002 to 16,830 square miles; the area included 4,226,615 acres of rice, and 301,207 acres of garden land, and the cost of the work was Rx. 12,300 during the year. The area sold during the year was 280,000 acres against 263,000 in the previous year; the area mortgaged was 113,000 acres against 63,000; and the area redeemed from mortgage was 49,000 acres against 35,000 in the previous year. The average price paid for land increased in every district. The area sub-let to tenants was 722,000, or 16 per cent. of the whole land under survey. The area of waste granted with temporary exemption from revenue was 141,000 acres against 113,000 and 67,000 acres in the two previous years. Burma.

Two cadastral survey parties in Upper Burma effected the survey of 1,766 square miles in the Shwebo and Yen districts, and 1,143 square miles in Minba and Magwe districts. The topographical and geographical work done by the survey department in Upper Burma during the year amounted to over 28,000 square miles. After the close of the year orders were passed on the settlement reports of State lands in the Kyankse and Mandalay districts. Settlement operations were begun during the year in the Sagaing, Minbu, and Meiktila districts.

In the Central Provinces cadastral survey has now been nearly completed everywhere except in the zemindarees, or chiefships, and in a part of Mandla. During the past five years 38,900 square miles have been cadastrally surveyed, and 17,300 square miles have been assessed at a total cost of Rx. 229,000, or 9 per cent. less than the amount estimated at the beginning of the period. The number of fields in the surveyed area has been 14½ millions, Central Provinces.

SETTLEMENTS AND CADASTRAL SURVEYS.

of an average size of 1¾ acres. The increase in revenue gained by the assessment has been greater than was expected. It was specially large in Chutteesgurh and the Nerbudda districts, where rentals had increased greatly during the previous 30 years; the increase was smaller in the Nagpore territory, where the ryots had held their own and rents had not greatly advanced. An adjustment of all rents had been a necessary part of every settlement; in the tracts where rents were high rents have not risen more than 5 per cent. at the adjustment now made; in Nagpore on the other hand they have been raised 14 per cent. In parts of Jubbulpore rents have been lowered at the settlement, and the Government demand has been assessed on the reduced rental. The local Government remarks that "the ease and completeness with "which the demand has been collected in the three districts of Chutteesgurh "and Mandla furnish satisfactory testimony of the moderation of the Revenue "Settlement recently effected in these districts, and of the success with which "very substantial increments have been equally distributed, so that the burden "sits lightly on the people, even in years of partial failure of the crops."

Assam.

Cadastral surveys were completed in the Assam Valley in August 1892, and the survey party was transferred to the Surma Valley. During the year the cadastral survey was effected of 825 square miles, of which 492 belonged to the Sylhet district. The final preparation and closing of cadastral work in the Assam Valley was to take place in September 1893. The survey results for the year gave an increase of 11½ per cent. in the previous revenue. Revision surveys were completed over 874 square miles in four districts of the Assam Valley and in Sylhet. The cadastral survey of the Assam Valley has yielded on the whole an increase of Rx. 17,400 in the land revenue, or 8 per cent. on the cost of the operations; the cost per square mile has been gradually reduced from Rx. 49½ in 1883–84, the first year to Rx. 16 in the last year of the work. This increase of revenue is altogether apart from the enhancement of the land revenue rates, the results of which measure will be shown in next year's Statement.

Madras.

In Madras four parties were employed on original cadastral surveys, and two parties on re-surveys during the year 1892-93. The area of original survey effected during the year was 2,356 square miles, or 16 per cent. more than in the previous year; the cost was Rs. 179 per square mile against Rs. 260 per square mile in 1891-92. The area of re-survey in three districts, namely, Trichinopoly, Kistna, and Godavari was 2,335 square miles, and the cost was Rs. 45 per square mile; the out-turn of re-survey work was 60 per cent. above the previous year, but was below the estimate because sufficient village accountants (*karnams*) had not been made available for the duty. In only three districts, and for an area of 3,736 square miles, is any original survey left to be done, and it is expected the original survey of the Madras Presidency will be completed by 1895. The number of copies of survey and other maps struck off during the year was 294,149, or nearly 50 per cent. above the out-turn of the preceding year. The cost of the survey during the year was Rx. 58,128; and the total outlay on survey and settlement, since operations began in 1858, has been Rx. 3,110,000; while the increase of revenue secured has been Rx. 405,000, or 13 per cent. on the outlay. This does not include the increase yielded by the re-settlement, which is now in progress in three districts; the re-settlement in the Tanjore district alone is resulting in an addition of Rx. 110,000, or 30 per cent. to the land revenue. The settlement officer reported that a much larger increase would have been fairly demandable, but the Government decide to limit the enhancement to 11 lakhs. Compared to the value of the land and to the rents realised by landholders (mirasidars), the new revenue of Tanjore is believed to be moderate.

Bombay.

In Bombay three parties effected cadastral surveys of 1,196 square miles, at a cost of 157 rupees per square mile, and classified 5,729 square miles at an average cost of 35 rupees. The cost was higher than in the previous year, because less work was done in the Deccan, where operations are cheaper. The Sind Survey Department surveyed 490 square miles of arable land, and the forest survey was completed over 446 square miles. In Bombay much of the work consisted of revision survey, for which testing and correction of old surveys, rather than complete re-measurement of all lands, are mainly required.

Settlement operations resulted in the sanctioning of revised assessments, by which the old demand of Rx. 194,600 was raised to Rx. 253,100, an increase of 30 per

30 per cent. The increase was justified by the rise in prices, the improvement in communications, and the increase of agricultural well-being that had taken place since the former settlement of 30 years back. The total increase of revenue secured by the settlement revision operations in Bombay up to October 1892 came to Rx. 313,000 a year, or 33 per cent. on the former demand; this increase is outside the yearly increment of revenue due to the extension of cultivation. The cost of the revision operations, exclusive of work in Sind, has been Rx. 523,700. In Sind the settlement has been completed; only a small establishment is retained to measure new land taken up for cultivation, and to keep the village maps and registers up to date.

SETTLEMENTS AND CADASTRAL SURVEYS.

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VII.

LAND REVENUE, INCLUDING FISHERY RECEIPTS AND CAPITATION TAX, AND WARDS' ESTATES.

LAND REVENUE.

THE subjoined table shows the receipts and disbursements on account of land revenue for each province, as entered in the public accounts for the year 1890-91; also the net land revenue for the past two years.

DETAILS of LAND REVENUE and EXPENDITURE.

	Bengal.	North West Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	India, General.	Madras.	Bombay.	TOTAL.
REVENUE.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Ordinary Land Revenue -	3,759,400	5,999,415	2,223,834	1,037,792	89,482	433,191	125,327	5,041,130	3,641,056	23,045,474
Sale of Proprietary Right of Government in Land.	302	165	48	—	--	—	84	633	—	1,232
Assessment or quit-rent of alienated lands.	7,409	—	20,606	—	—	—	—	—	974,683	1,002,698
Sale of Waste Lands and Redemption of Land Revenue.	2,934	65	3,006	9	—	841	2,260	1,456	—	10,737
Capitation Tax or House Tax levied in lieu thereof.	1,850	--	—	377,441	—	—	1,471	—	—	380,762
Receipts for the Improvement of Government Estates.	47,370	—	—	—	—	—	—	—	—	47,360
Fisheries and other Receipts classed as Miscellaneous.	30,354	45,267	108,940	200,237	5,556	38,918	9,923	114,628	28,383	582,202
Upper Burma Receipts, apart from Land Revenue proper.	—	—	—	557,331	—	—	—	—	—	557,331
Total Gross Revenue Rx.	3,849,609	6,044,912	2,356,434	2,267,657	695,038	472,950	139,065	5,157,847	4,644,122	25,627,634
Deduct portion credited to Public Works.	—	117,498	13,725	—	—	—	--	506,773	84,309	722,306
Total in Revenue Accounts - Rx.	3,849,609	5,927,414	2,342,709	2,267,657	695,038	472,950	139,397	4,651,073	4,559,813	24,905,328
Corresponding Total for previous Year Rx.	3,867,957	5,930,886	2,321,461	2,142,036	701,507	466,900	138,673	3,950,758	4,445,596	23,965,774

In India the State, or the monarch, has always enjoyed a share in the rent or profits from the land. This revenue is levied according to an assessment fixed on estates or holdings. The assessment was fixed permanently 100 years ago on certain tracts paying about Rx. 4,311,000 a year; and it is fixed periodically, for terms of 12 to 30 years, over the rest of India. On large estates, ranging from a few hundred to many thousand acres each, the assessment, periodically fixed, is a share, generally about one-half, of the rental enjoyed by the proprietors; on small estates cultivated by peasant proprietors the assessment is levied on the cultivated area at a rate per acre fixed with reference to the productiveness of the land, and representing about one-half of the estimated letting value. The permanently settled tracts comprise the greater part of Bengal, about one-fourth of Madras, and certain southern districts of the North West Provinces. Of the temporarily settled tracts, the North West Provinces, the Punjab, Oudh, the Central Provinces, and Orissa mainly contain estates held by proprietary brotherhoods or large proprietors; while in Bombay, Burma, Assam, and Berar, and in the greater part of Madras, the land is held and tilled by petty proprietors. In the permanently settled tracts of Bengal the land revenue falls at about two-thirds of a rupee per acre of cultivated land, and represents on an average about one-fifth of the rental,

or

or perhaps one twenty-fourth of the gross value of the produce; in similar tracts of the North West Provinces the incidence of the land revenue is somewhat higher. The average advantages of soil and climate are on the whole greater, and the prevailing rates of rent are on the whole higher, in the permanently settled than in the temporarily settled tracts. In the latter tracts the land revenue represents something less than one-half of the actual or estimated rental, and is probably about one-tenth to one-twelfth of the gross value of the produce. Rates of rent and revenue vary greatly according to the productive power of the land, according to the advantages of climate and rainfall, and according to the facilities for carrying produce to markets or to the sea-board. Payment for water, supplied by State canals or reservoirs for purposes of irrigation, is made either according to the area irrigated or according to the quantity of water used; but the State demand on any land is not enhanced on account of increased productiveness due to improvements made by the proprietors or occupiers themselves.

The gross land revenue of the year 1892-93 shows an increase of Rx. 940,000, as compared with the previous year; but the receipts for 1891-92 were adversely affected by the drought in Southern India, where Rx. 500,000 of land revenue had to be remitted or suspended. On the whole the tendency of the land revenue is to increase gradually and slowly, partly from periodical revisions of the assessment rates after a period of advancing prices, and partly from extensions of cultivation. The increase during the last six quinquennial terms may be thus shown:—

Period of Five Years from	Average Yearly Land Revenue Receipts of the Period.
	Rx.
1861-65	19,931,000
1866-70	19,990,000
1871-75	20,965,000
1876-80	21,114,000
1881-85	22,122,000
1886-90	23,432,000
Three years, 1890-93	25,007,000

A part of the increase during the last period was due to the acquisition of Upper Burma, which yielded Rx. 167,000 of land revenue in the year 1886-87, and Rx. 662,000 in the year 1892-93.

The progress of the land revenue, the condition of the landed classes, and the relations of these classes to each other are now noticed province by province.

The seasons of 1892-93 were on the whole favourable in Bengal; the autumn crops gave a full average yield, and were estimated to cover 15¾ million acres; the great winter rice crop was returned at over 30 million acres, with an average yield of seven-eighths of a full crop; the spring crops covered a larger area than in the previous year, and gave seven-eighths to a full yield. There was a good jute crop; but the indigo yield was poor. Prices of food grains continued high.

The land revenue demand showed an increase of Rx. 21,015, owing to the conclusion of settlements; and the collections on account of the current year's demand showed an increase of Rx. 3,408; the proportion of collections to the total demand was 95¾ per cent., and 99½ per cent. to the current demand; the collections were not so punctual as in the previous year. Remissions to the extent of Rx. 8,655 were granted, chiefly on Government estates occupied by ryots in Midnapore. The uncollected arrears at the end of the year were Rx. 161,250,

LAND REVENUE.

Rx. 161,250, or Rx. 13,098 larger than in the previous year. Sales of land for arrears occurred in 1,355 cases, out of 16,913 cases in which land became liable to sale under the law. The estates sold were mostly small and of little value; the total arrears due thereon were Rx. 4,764, and 41 estates were bought in by Government for a total price of Rx. 4½. In 146,572 cases, against 159,700 in the previous year, arrears of public demand other than land revenue were taken into court under the certificate procedure, with the result that in 75,976 cases property was attached, in 6,380 cases attached property was sold, in 1,785 cases warrants for arrest were issued, and in 63 cases defaulters were actually sent to jail. The Government have directed that hereafter no defaulter shall be sent to prison unless there is good ground for believing that he has concealed his property. About half of the certificates were filed on account of arrears of the road cess; and the arrears of this class of business at the end of the year were smaller by 13,777 cases than at the end of 1891–92.

Revaluations of the rental for the purposes of the Road Cess Act were completed during the year in 17 districts. The total demand of the year for the road and public works cesses was Rx. 809,101, showing an increase of 2 per cent. over the previous year; and the collections were considerably more punctual than in the preceding year. The registration of landowners has now been completed for the whole of Bengal except the district of Cuttack; and the percentage of transfers by succession or otherwise that were registered was 5·5 on the total number of interests registered under the initial registration; the corresponding percentages in each of the two previous years was 5·7.

The relations between landlords and tenants were reported to be on the whole satisfactory during the year. From some districts instances of strained relations and of discontent on the part of the ryots are reported; from Midnapore difficulties are reported among the tenants of a European firm which is pressing to the utmost its legal rights against anyone who refuses to grow indigo; in Faridpore and Backergunj there is much ill-feeling, and in two cases murders resulted; from Monghyr rioting and serious trouble are reported on four estates; but in other districts previous disputes have been amicably settled or are quieting down. The making of a survey and a record of rights under the Tenancy Act has settled obstinate and protracted disputes in several districts. The Bengal Tenancy Act, which has now been more than seven years in force, is said to be working smoothly. The Act came into force at the end of 1885; and the returns of suits under the rent and tenancy laws of Bengal for recent years show:—

1884	- - - -	179,776	total suits under the Rent and Tenancy Law.	
1887	- - - -	189,387	„	„ „
1889	- - - -	201,651	„	„ „
1891	- - - -	204,250	„	„ „
1892	- - - -	223,305	„	„ „

During the year 54 landholders applied to have their estates surveyed and settled under Chapter X. of the Tenancy Act. Of these, 44 were private estates, the remainder being Government and wards' estates.

North West Provinces and Oudh.

The latest reports on land revenue affairs in the North West Provinces and Oudh pertain to the year ending 30th September 1892. The autumn rainfall began late but continued till the end of September, the winter rains were light, and the total fall of the year was from 13 per cent. below the average. The autumn harvests were better than in the previous year; the yield of all spring crops was only fair, though better than in 1891. The total area under cultivation showed a decrease of 214,000 acres; the shrinkage occurred entirely in the spring crop area, and was due to abnormally large spring sowings of 1890–91. The area twice cropped during the year was 7,785,000 acres, whereby the total crop area was brought up to nearly 41¾ million acres. The irrigated area was 9,917,000 acres, or 24 per cent. of the total crop area, 8,277,000 acres being irrigated from wells. Prices of food were, on the whole, easier than in the previous year, but they were still high, and pressed heavily on the population of towns. Prices reached famine level in some of the

the hill districts, and the Government had to import grain for the people. The general health of the people was indifferent; cholera was more or less prevalent, especially after the dispersion of the great crowds of pilgrims from Hurdwar and Benares. Cattle disease was not specially rife during the year. LAND REVENUE.

The gross collections of land revenue in the North West Provinces and Oudh under all heads rose to Rx. 7,510,000, as compared with Rx. 7,444,000 in the previous year. Of the increase, Rx. 27,000 were due to the enhancements effected at the resettlement of the Mozaffarnagar district; and Rx. 20,000 were due to the greater demands and payments for canal water. Ninety-nine and a-half per cent. of the demand was collected, and the real as distinguished from the nominal and irrecoverable arrears uncollected at the end of the year were Rx. 29,500. There was less difficulty in realising the revenue, and the total number of coercive processes of all kinds fell to 77,000, against a total of 86,000 during the preceding year. In 11 cases (eight of them concerning the properties of a single defaulter in a single village) land, and in 356 cases, moveables, had to be sold for arrears aggregating Rx. 10,200 in all. The longest period for which any defaulter remained in detention under arrest was 14 days. The total number of defaulters arrested was 7,318. It was noted with satisfaction that the collection for the first time of the enhanced revenue in the district of Mozaffarnagar caused no difficulty, and there were no arrears whatever outstanding in that district at the end of the year. The payment of Rx. 296,000 of land revenue was effected by means of postal money orders.

The number of suits and applications under the rent law in the North West Provinces was 255,765, or 4 per cent. above the total of 1890–91, and was larger than in any previous year. Of the suits, over 90 per cent. were, as in previous years, for arrears of rent. The prominent feature of the year was the large increase in the number of cases for ejectment and enhancement of rent. The number of notices of ejectment brought against privileged tenants was 19,142, or 9 per cent. more than in the previous year, and in 7,197 cases ejectment was effected, but the areas affected by the notices and the ejectments were in both cases smaller than in the previous year. Against tenants at will 64,353 notices of ejectment were filed, affecting 312,341 acres; 27·6 of these notices were contested, and in 9,047 cases, or 52 per cent. of the contests, the tenants were successful. Of the total area occupied by tenants, 10,302,673 acres, or 49 per cent. of the whole, was held by persons possessing tenant rights. The number of notices of relinquishment filed by tenants fell from 18,734 to 17,289; and the number of applications by distraining landlords for sale rose from 21,477 to 25,656. In Oudh the number of suits under the rent law was 34,112, and of applications 14,489; in both cases the total was a little above the corresponding figure of the previous year. Of the suits, 71 per cent. were for arrears of rent; and 42 per cent. of all suits were contested. Notices or applications for ejectment of tenants rose from 8,432, affecting 89,153 acres, to 12,841 cases, affecting 80,613 acres; tenants were actually ejected from 7,167 holdings, with an aggregate area of 44,245 acres. It is reported that forcible evictions of tenants by other than legal process are becoming fewer in Oudh year by year. In 3,194, or 19 per cent. of the appealable suits in the North West Provinces, appeals were preferred to collectors, with a result that in 41 per cent. of the appeals the original decision was reversed or modified; in Oudh 719 appeals were preferred in 11 per cent. of the appealable cases, with the result that the original decision was reversed or modified in 36 per cent. of the appeals. In the combined provinces appeals in 21 per cent. of the cases appealable to judges, who reversed or modified the decisions in 38 per cent. of the appeals coming before them. The percentages in regard to all appeals did not differ materially from the corresponding proportions in the preceding year. The number of applications for partitions was 2,682, or 11 per cent. more than in the previous year, and the arrear business of this kind had increased at the end of the year. The number of loans granted under the Land Improvement Loans Act of 1883 increased to 733, of which 457, for Rx. 9,384, were to landlords, and 276, for Rx. 2,964, were to tenants; under the Agriculturists Loans Act, Rx. 33,477 were advanced during the year. The outstanding amounts for principal and interest under both Acts, at the end of the year was Rx. 93,750; and overdue instalments for principal and interest amounted to Rx. 9,809.

LAND REVENUE. Punjab.

The latest Punjab land revenue report and statistics are for the year ending on the 30th September 1892. The average rainfall of the province for the year was only two-thirds of the normal average; the autumn rains began late, and were intermittent; and there was hardly any winter rainfall. The autumn crops were poor all round; while the spring harvests were much below the average, save on irrigated lands. The total area of crops harvested decreased by 2,127,000 acres, or 9 per cent.; the irrigated area decreased by 113,000 acres, or 1½ per cent.; the irrigated crops covered 7,487,000 acres, or 34 per cent. of the whole area of harvested crops; of the total, 2,852,000 acres were irrigated from canals, the rest from wells; the decrease was entirely under well irrigation, and was due to scarcity of fodder for cattle working the wells; the canal irrigated area increased by 144,000 acres. Notwithstanding the unfavourable season the prices of autumn food grains were not higher than in 1891; but there was a considerable rise in the price of wheat, cotton, of several staple spring crops, and of butter. The fixed land revenue demand was Rx. 29,000, or 1¼ per cent. larger, and the collections were Rx. 8,000, or ⅓ per cent. larger, than in the previous year. Owing to the character of the season, Rx. 32,000 of the demand were suspended; but the processes issued for the recovery of arrears were 3,903 fewer than in the previous year.

The number of suits for enhancement of rent rose from 1391 to 1746, and landlords were successful in 82 per cent. of these suits. The number of decrees passed for ejectment of occupancy tenants was 28, and 6,633 decrees of ejectment were issued against tenants-at-will, compared with 5,715 in the previous years; of these notices nearly one-half pertained to the Hissar district. Fifty-five per cent. of the total cultivated area of the province is tilled by proprietors and 45 per cent. by tenants. Of the land held by tenants 77 per cent. is in the hands of tenants-at-will and 23 per cent. is tilled by tenants with occupancy-right. Tenancies at-will increased, and tenancies with occupancy-right decreased during the year. Cash rents range from one-sixth of a rupee in the rainless tracts of the Derajat, up to 50 rupees per acre on the very best irrigated land. On 52 per cent. of the area held by tenants the rent is still paid in kind. There was a decrease of 11 per cent. on the area passing into the hands of mortgagees, as compared with the previous year. The area under mortgage at the end of the year was 4,169,000 acres out of a total of 55,143,000 acres of proprietary lands. Out of the 602,000 acres of waste land in the Central Punjab, which have been made culturable by the New Chenab canal, 236,000 acres had been allotted to colonists who had come from over-peopled districts; 6,453 peasant families were in possession of 206,000 acres; 27,000 acre were cultivated and 20,000 acres more were broken up during the year. Unfortunately the whole population, old residents as well as new comers, were prostrated for some months by fever of a very malignant type.

Burma.

The rainfall of 1892 in Burma, except in five districts of the Upper Province, was heavier than in the two preceding years, and the harvests were better. The rice crop, which covers nearly 90 per cent. of all the cultivated land in Lower Burma, was heavy. The price of rice fell heavily, but relief operations, begun in consequence of the scarcity in 1891, had to be continued in part of the Upper Province up till the middle of 1892. In Lower Burma the cultivated and assessed area increased by 341,000 acres, or nearly 7 per cent. during the year; and the land revenue advanced in even greater ratio. Part of the increase was due to the revised assessment made at the recent regular settlement of the Thongwa district, and to the imposition of maximum rates in parts of Pegu which had enjoyed reduced rates since the regular settlement of 1883–84. The fishery and capitation revenue in the Lower Province also showed a further advance. In Upper Burma there was also an important increase in the capitation tax, which still takes the place of land revenue over the greater part of the country, and in the revenue from State lands. These increases were due mostly to the good harvests. The revenue was realised, for the most part, punctually and without pressure. The balances overdue were Rx. 10,086 under land revenue, and Rx. 735 under fishery revenue in Lower Burma: Rx. 1,842 under capitation tax, and Rx. 17,802 under revenue from State lands in the Upper Province. A new item was added to the fishery revenues of Lower Burma during the year by the lease of the Mergui pearl banks in five blocks for a period of three years at a rental of Rx. 2,681, rising to Rx. 3,325 a year.

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The large advance made during the year by Burma under all heads of revenue accruing from the land may be seen from the following figures:— LAND REVENUE.

	Revenue Collections of		Increase in latter Year.
	1891-92.	1892-93.	
	Rx.	Rx.	Rx.
Land revenue, Lower Burma - - -	922,600	1,021,500	98,900
Capitation tax - ditto - - - -	371,500	383,000	11,500
Fishery revenue - ditto - - - -	162,100	169,100	7,000
Capitation tax, Upper Burma - - -	430,700	468,900	38,200
State lands revenue - ditto - - -	99,200	121,200	22,000
Forest revenue in the combined provinces -	418,500	566,000	147,500
TOTAL - - -	2,404,600	2,729,700	325,100

The latest land revenue report from the Central Provinces is for the year ending in September 1892. The rainfall was considerably above the average, but it was badly distributed; no rain fell in June, but there were torrents during the next three months. All autumn crops, except rice, suffered from excessive rain; the wheat crop was scanty, but the linseed harvests was good. Prices of all field produce ranged higher than in the previous year; the dearness of the coarser food grains caused some hardship. The land revenue demand was the same as in the previous year, namely, Rx. 676,000. All but Rx. 2,927 (or 0·4 per cent.) of the demand was collected during the year; in eleven districts of the province the demand was collected in full. There was an increase in the number of coercive processes for realisation of arrears, and the total number was 4,706, against 3,990 in the previous year. One defaulter was sent to jail during the year, no land was sold for arrears, and there were only 15 sales of moveable property for default. There was a small increase in the area of land transferred by sale or mortgage; the total area of such transfers was 363,000 acres, as compared with 350,000 acres and 471,000 acres in the two previous years. In most districts the large majority of the transfers of the year were from one landholder to another. Litigation under the tenancy and rent law continues to be as yet small. Suits for arrears of rent rose from 7,371 in the preceding year to 8,709, of which 22 per cent. went in favour of the defendant; the number of notices for ejectment of ordinary tenants fell from 3,123 to 1,636. Out of a total occupied area of 19½ millions of acres, less than 4½ millions or about 25 per cent. are held by tenants-at-will, the remaining 75 per cent. being cultivated by proprietors and privileged tenants; while the average rent paid by ryots of all classes, holding 14¾ million acres, was $12\frac{7}{12}$ annas per acre, or less than one-third of the average rack-rent paid by sub-tenants. Central Provinces.

In the Assam, the rainfall of 1892-93 was above the average; the season was favourable to most crops except tea. The price of rice was above even the high price of the preceding year. The land revenue demand increased by 1½ per cent. above that of the preceding year; in the year 1891-92 the increase had been 2 per cent. The increase of Rx. 6,500 was mainly due to the operations of the cadastral survey in the Kamrup, Sibsagar, and Nowgong districts. Out of the whole demand, including arrears, 98·04 per cent. was realised, ·04 was remitted, and 1·93 remained at the end of the year still to be collected, as compared with 1·44 per cent. uncollected at the end of the previous year. The remissions made during the year came to Rx. 162, as compared with Rx. 38 remitted in the year 1891-92, and Rx. 124 in 1890-91. The proportion of the settled area to the total area of the province is 17·22 per cent. Six years ago it was 15·92 per cent. There was an increase from 24·408 to 25·851 in the number of notices issued for arrears in the districts of the Assam Valley; Assam.

LAND REVENUE.

Valley; but the number of estates sold for arrears was only 54 as against 73 in the previous year. There was a decrease of 28 in the number of estates sold for arrears in the permanently settled district of Sylhet. In the Assam Valley, the area held under decennial leases continues to decrease; there are now 270,779 such holdings as compared with 273,312 in the previous year. The miscellaneous receipts showed an increase of Rx. 298 over the total of last year, coming chiefly from fisheries and coal royalties.

The number of tea-grants in the province for the year 1892 was 807, and the area held under them was 1,044,984 acres. During the year the number decreased by 21, but the total area of land held under the grants rose by more than 218,000 acres.

The average incidence of the land revenue is 1*r*. 11*a*. 9*p*. per acre for land held on annual leases, and 1*r*. 14*a*. 9*p*. for land held on decennial leases; while special tenures and waste land grants pay much lower rates.

Madras.

In the northern half of the Madras Presidency the season was generally favourable during the year 1892–93; but in the latter part of the agricultural year the southern half suffered from severe drought. Throughout the Presidency the north-east monsoon gave a rainfall of 16 per cent. below the average. Relief works were opened in eight districts, and in May 1893, 80,000 persons were employed on them. The district most seriously affected was Kurnool. During June and July the condition of things improved, and the favourable character of the south-west monsoon, in the districts most affected, made it possible to close all relief works by September. The area under crop exceeded by more than 2,000,000 acres that of the preceding year, and by nearly 1,000,000 acres the average area of the 5 preceding years, the figures being for 1892–93, 26,404,477 acres; for 1891-92, 24,309,168 acres; average for five years ending 1890–91, 25,473,586 acres.

The latest report on land revenue affairs in Madras pertains to the year ending on the 30th June 1892, that is to the season preceding the year to which the foregoing paragraph relates. The total area under occupation by raiyats in the districts for which statistics are available, was 21,157,000 acres, or 0·8 per cent. over the area of 1890–91, which was previously the highest on record. The increase in the occupied area was largest in Bellary, Malabar, and Nellore. The occupied area for the whole of the Madras Presidency exceeded the area occupied in the year 1875–76, before the great famine, by 5·67 per cent. Of the occupied area 79·6 per cent. bore crops. During the 10 years previous the proportion of cultivated to occupied area had averaged 85 per cent., and the falling off in this year was due to the badness of the season. Owing to the same cause the remissions of revenue rose from 15½ lakhs in 1890–91 to 37 lakhs, and the total land revenue demand for the year showed a decrease of 22½ lakhs as compared with the preceding year.

Bombay.

The season of 1892–93 was on the whole favourable in the Bombay Presidency, except that Sind suffered at the beginning of the year from drought, and later from floods. The staple crops yielded, as a rule, good returns; and prices were somewhat below their normal level, except in Sind, during the earlier part of the year. The gross cropped area of the Presidency, so far as figures were available, was 25,815,000 acres, the increase on the area of the previous year being about 960,000 acres, or 3·9 per cent. The collections on account of land revenue were Rx. 3,703,363, being Rx. 133,961, or 3⅓ per cent. larger than in the preceding year. The revenue was collected with exceptional and most satisfactory facility; in Bombay proper and Sind the number of occupancies was returned at 1,467,281; and the number of warrants of distraint issued was 816, as compared with 1,445,259 and 2,453 respectively in the previous year.

Berar.

The rainfall of 1892 in Berar was nearly 40 per cent. above the average, and the crops of both the autumn and spring harvests were injured by excessive and untimely rains. The price of millet (jowari), the food of the people, was considerably dearer than in the two previous years; in some parts it was twice as dear as in the year 1890–91. The public health generally was good throughout the year. The total area under crop was 6,805,000 acres, or 140,000 acres more than in 1891–92; the largest increase was in the millet area, which occupied

33·3 per cent. of the cultivated land of Berar; the area under cotton decreased, and was 31·8 per cent. of the whole cultivated land. LAND REVENUE.

The land revenue demand of the year, including cesses, showed an increase of only Rx. 264, raising the total demand to Rx. 697,000. Of the demand actually due for the year less than one per cent. were uncollected. The number of coercive processes issued against defaulters showed an increase, there having issued 8,336 writs of demand against 6,509 in the previous year; in 21 cases personal property was sold for arrears; 84 fields were also sold; but no defaulters were sent to prison. The area of land transferred by private sale was 110,000 acres, or less than half the total of the previous year; this area is small, as compared with a total of 7,659,000 acres under occupation; the average price fetched was 18 times the revenue assessment. Preparation is being made for the re-settlement of the land revenue of the Province, which has to be accomplished between the years 1892 and 1908, by training local agency to effect a revision survey. The inspection of village records, and of the ryots' receipt books were fewer than in the preceding year; but the proportion of mistakes and irregularities detected was smaller. The number of boundary marks found out of repair on cultivated land was 367,000, of which all on occupied lands, except 13,000, were repaired by the close of the year.

GOVERNMENT AND WARDS' ESTATES.

In Bengal, 74 wards' estates and 66 attached estates, or four less than in the preceding year, were under the management of the Court of Wards, with a total rental of Rx. 492,118; the collections on account of arrears and current demand came to 97·8 per cent. on the latter, as compared with 99·8 per cent. in the preceding year. The cost of management was 7·8 per cent. on the current rental and cess demand, as it had been in the preceding year. There was spent on schools, dispensaries, and improvement and maintenance of estates a sum of Rx. 57,233. Of the items that made up this total those under the headings of permanent improvements and maintenance show a considerable increase on the preceding year. Debts to the amount of Rx. 107,000 were paid off during the year, and the outstanding debts due from all wards' estates were Rx. 370,000 at the close of the year. The cash balances at credit of wards' estates were Rx. 194,000 on the 31st March 1892, and the investments in Government securities were Rx. 484,000. Fourteen estates were taken over, and 12 released by the Court of Wards during the year. One of the newly-received estates showed a rent-roll of Rx. 2,300, and debts of Rx. 48,200. The 12 estates released during the year were burdened with debt to the amount of Rx. 170,000 when first taken over by the Court; Rx. 135,000 of debt had been paid off, Rx. 20,000 had been spent on improvements, and Rx. 30,000 had been saved or invested in respect of these 12 estates at the time they were returned to their owners. On the Srinagar estate a survey and record of rights was prepared at a cost of Rx. 30,000, with the result that the rent-roll rose from Rx. 26,000 to Rx. 30,300. The tenants of the estate are reported to be well off; and the survey is said to have resulted in the comparative cessation of disputes that used to be very rife. On the great Burdwan estate, which is managed by a Bengali gentleman on behalf of the Court, 99·8 per cent. of the current year's rent was collected during the year; and the old outstanding claims of the estate have been reduced to Rx. 130,000, a sum of Rx. 110,000 having been collected during the year. GOVERNMENT AND WARDS' ESTATES. Bengal.

The education of the young wards is everywhere receiving attention.

The number of estates under the Court of Wards in the North-Western Provinces and Oudh at the end of the year 1891–92 was 153, with a total annual income of Rx. 562,000. Thirteen estates were restored to their proprietors during the year, entirely free of debt, excepting one small property; many of the released estates had been increased in value during the minority of the owners. Against the estates under the Court there had been debts amounting to Rx. 1,435,000, which were reduced by March 1892 to Rx. 353,000. The cost of management averaged 6 per cent. on the total receipts; and Rx. 13,600 were spent on works of improvement. Of the year's rental, 85 per cent. was collected; North-West Provinces and Oudh.

GOVERNMENT AND WARDS' ESTATES.

collected; Rx. 68,900 were expended in paying off debt; while Rx. 68,500 were invested in public securities, or on mortgage, or in the purchase of lands and houses; and Rx. 3,400 on giving help to tenants. The number of notices of ejectment of ryots fell from 421 to 355, of which 94 per cent. were decided against the tenants; and there were 9 suits for enhancement of rent, the average rent being raised on the average of these cases, from 1½ to 2 rupees per acre.

Punjab.

At the end of the year 1892–93, 64 estates were under the management of the Punjab Court of Wards; and five estates were surrendered to their owners during the year. The excess of income over expenditure was Rx. 31,918, as compared with Rx. 18,527 in the previous year. Special attention was paid during the year to the due investment of surplus funds, in order to prevent the ward, when he attains his majority, from finding ready to hand a large accumulation of cash, or of investments easily convertible into cash.

Central Provinces.

In the Central Provinces the Court of Wards relinquished the management of 19 estates, with a rental of Rx. 7,600, and received charge of four estates. At the end of the year 131 estates, with a gross income of nearly 17 lakhs of rupees, were under management. In all the four estates newly undertaken, management was assumed at the request of indebted proprietors who have been declared, at their own wish, incapable of managing their own property. The Court of Wards collected 93½ per cent. of the rental of the year. The cost of management was less than 8 per cent. of the gross actual income. The amount of tenancy litigation on lands under the Court of Wards continues to decrease. Of the debts due by embarrassed estates nearly Rx. 20,000 were paid off during the year, and Rx. 120,491 were still due at the end of the year. About Rx. 120,000 were spent on the permanent improvement of, and in advances to ryots in, solvent estates; and Rx. 4,685 were invested in Government securities or landed property.

Madras.

The Court of Wards in Madras during the year 1891–92, the latest for which information is available, handed four estates back to their proprietors, and took charge of seven estates; there were thus 55 estates under the Court at the end of the year, as compared with 52 at the beginning. In two of the estates surrendered the rental had, in consequence of bad seasons, decreased during the time they were under the Court; in the other two, both the rentals and the cash balances showed a considerable increase. There was, in consequence of the unfavourable season, a decrease of 6 per cent. in the cultivated area as compared with the previous year. The total current collections of the year were Rx. 234,096, and they amounted to 79 per cent. on the current demand, or 3 per cent. worse than in the previous year. The cost of management and of State assistance came to 11·1 per cent. on the total receipts of the year. The balance at the credit of all estates, invested and uninvested, at the end of the year was Rx. 606,792 more than at the beginning of the year. The debts due by the estates at the end of the year were Rx. 175,661, debts amounting to Rx. 13,998 having been paid off during the year. The expenditure on works of irrigation and other improvements was Rx. 18,642. The progress in education of the 61 wards, 52 males and 9 females, and their relations, was said to have been in most cases good. The older minors on certain estates were instructed in Revenue Law and Accounts, in order that they may be able to manage their estates when they attain their majority.

Bombay.

In Bombay the estates under the Court of Wards or under Government management were of several kinds, namely:—

	No.
(1.) Estates under the Court of Wards, outside Guzerat	83
(2.) Encumbered estates in Guzerat, &c., managed under Acts of 1862, 1881, and 1884, and under the Civil Procedure Code; and talukdari villages	600
(3.) Encumbered estates in Sind	30

The aggregate area of the 83 wards' estates outside Guzerat was 151,892 acres, and most of the estates are of small area.

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The estates of the second category are all in Guzerat, and are under the care of a special revenue officer, in addition to his duties as assistant collector. The total rental of these Guzerat estates was Rx. 76,000, out of which Rx. 68,000 were collected. Payments to creditors were Rx. 10,700, besides Rx. 7,500 repaid on account of Government loans; Rx. 19,800 were paid as Government land revenue; maintenance of the owners and their families cost Rx. 15,200; and Rx. 14,000 were invested in Government securities and land on account of minors. The revenue of the talukdari (or proprietary) villages under the special officer's charge was Rx. 36,800, of which 89 per cent. was collected. The minor proprietors are receiving instruction. The revision survey of the Talukdari villages by a party of the Bombay Survey was completed during the year. On 30 encumbered estates in Sind, the cost of management ranged from 3 to 4 per cent. in the different districts. Out of a total income of Rx. 7,219, debts were paid off to the amount of Rx. 1,771; while nine estates were freed from debt and restored to their owners during the year; and debts amounting to Rx. 3,410 were still due at the end of the year. GOVERNMENT AND WARDS' ESTATES.

There were no wards' estates under the management of public officers in— Burma, &c.

Burma,	Berar,
Assam,	Ajmere,

during the year.

VIII.

FORESTS.

FORESTS.

THE subjoined tables give the forest revenue, expenditure, and surplus for each province during the year 1892–93.

——	Bengal.	North-Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	India General.	Madras.	Bombay.	TOTAL.
REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Receipts - - - -	74,488	165,254	81,263	566,000	123,085	38,283	58,283	157,721	326,955	1,591,332
EXPENDITURE:										
General direction - - -	—	—	—	—	—	—	7,743	—	—	7,743
Conservancy and Works - -	13,303	57,641	35,763	113,891	39,478	11,664	29,671	67,080	101,011	469,502
Establishments - - - -	24,826	34,599	29,749	66,391	45,616	14,726	15,203	65,208	88,816	385,134
Charges in England - - -	—	—	—	—	—	—	2,846	—	—	2,846
TOTAL Expenditure - - -	38,129	92,240	65,512	180,282	85,094	26,390	55,463	132,288	189,827	865,225
Net Revenue or Forest Surplus - - - -	36,359	73,014	15,751	385,718	37,991	11,893	2,820	25,433	137,128	726,107
Net Surplus of the previous Year, 1891–92 -	36,808	77,927	38,071	251,720	55,677	6,900	5,612	38,090	135,751	646,656

General.

Some beginning was made in the forest administration and conservancy of Southern India in 1844; 10 or 12 years later similar work was begun in Western and Northern India; the subject was taken up systematically all over India when the mutiny troubles were over; and within the last 20 years forest laws have been enacted for, and forest administration has been placed upon a permanent basis in, every province of India. The superior officers of the forest service have been, for the most part, selected by competition, and have been trained in forestry, either in Germany, or in France, or at Cooper's Hill College; during the past year it has been decided that 20 per cent. of the superior posts in the forest department shall eventually be filled by selected officers from the subordinate or provincial branch of the department. Some of the subordinate officials are trained at a forest school near Dehra in the sub-Himalayan country of the North-Western Provinces, and this system of professional training at local centres will be gradually extended. The first object of the forest administration is to select, acquire, and mark off as reserves an area of State forest in every province sufficient to supply the wants of the neighbourhood and the province in respect of timber, firewood, bamboos, canes, and other forest produce, and sufficient also for supplying the foreign demand for such articles as teak-timber, sandal-wood, and rubber. The reserves are, or will be, surveyed, conserved, and worked on sanctioned plans, designed so as to obtain the largest possible permanent yield in the most economical way. Private rights in the reserves are bought out or compromised. Among the most important measures of conservancy are the exclusion of the yearly fires which used to devastate forests, the maintenance of adequate seed-bearing trees, and the regular re-production of timber of the more valuable kinds. At the present time the reserves cover an area of nearly 70,000 square miles; and they may hereafter be further extended in Madras and Burma, where the work of reservation is as yet incomplete. Outside the reserves are considerable areas of State forest, some part of which will be eventually brought within the reserve area, and all of which is managed and worked for the benefit of the people, of their cattle, and of the public revenue. The limited areas of private forest are, except where they have been leased to the Government, being gradually exhausted; and as yet few private

and

and no communal, forests have been successfully brought under conservancy. In every province a very few of the most valuable timber trees are declared to be reserved trees, and can only be felled under special license; outside the reserves the country folk are generally allowed to obtain from the State forests timber, bamboos, firewood, and grass for their own use, free of charge; inside the reserves, only persons specially licensed are allowed to extract timber or other produce on payment of fees. Forest revenue is raised by royalties on, or by the sale of, timber or other produce, and by the issue at specified fees of permits to graze cattle, or to extract for sale, timber, firewood, charcoal, bamboos, canes, and other minor forest produce. In the year 1892–93 the gross forest revenue of British India was Rx. 1,591,332, and the net forest revenue was Rx. 865,225. Some of the better-managed Native States, such as Mysore, Travancore, and Baroda have followed the example of the British Government, have organised systematic forest administration, and enjoy a considerable forest revenue. Mysore has more than doubled its forest revenue since the country was restored to native rule in the year 1881. FORESTS.

The following paragraphs treat of forest administration in each province. By a recent arrangement the forest reports are now compiled for the 12 months ending on the 30th June; for some provinces the report for the year 1892–93 did not reach the India Office in time for this Statement, and in such cases the facts and figures for the year 1891–92 are given. The figures of revenue and expenditure in the following paragraphs, being compiled from administrative returns, do not agree precisely with the figures given in the table on the preceding page, which are taken from the finally corrected financial accounts.

In Bengal the reckoning of large areas of water surface, and the addition of 500 square miles of protected forest in Singbhum brought the areas of reserved and protected forests up to 5,703 and 3,071 square miles respectively. Forest surveys and working plans were being made for 2,130 square miles of reserved forests; and of the remaining reserves, 1,822 square miles can be managed without surveys for the next ten years. The working plans of the Sunderban forests were sanctioned in July 1893. The report for 1892–93 extends over 15 months, so the out-turns of timber and fuel are not comparable with those for the preceding year. The yield of timber and firewood, most of it from the Sunderban forests, continued at about the same scale as in the previous year. Bengal.

The principal feature of the year's administration was that the Government withdrew from direct departmental working, and left private persons to bring out timber and fuel, after obtaining licenses and subject to paying the prescribed forest dues. There was a decrease in the number of prosecutions for forest offences; 175 prosecutions were instituted, against 120 in the previous year; and the number of offences compounded fell from 1,865 to 1,179. Fire was excluded from 99 per cent., as compared with 96 per cent. in the preceding year, of the 1,890 square miles over which protection against fire was attempted. Of the remaining reserved forests 3,203 square miles are self-protecting. The season was specially favourable for fire protection. Natural reproduction of timber is said to be progressing favourably, especially in the sâl forests and the evergreen forests. The extent of plantations and of cultural operations was increased by 62 acres; and the total area of plantations in Bengal now amounts to 4,497 acres of oak, toon, sâl, and teak.

The forest receipts of the financial year were Rx. 74,488, and the expenditure Rx. 38,160; the receipts and the outlay were both lower than in the previous year, and the forest surplus was Rx. 36,319, or Rx. 3,434 below the surplus of the previous year. Fifty-five per cent. of the revenue, and 25 per cent. of the expenditure pertained to the Sunderban forests.

The forests of the North-West Provinces and Oudh are divided into three "circles," and comprise an area of 3,886 square miles. The figure given for the previous year was 3,916 square miles, but the decrease is merely nominal, being due to the correction of inaccurate earlier measurements. The Central Circle includes the forests of the districts of Naini Tal, Almora, Garwhal, Bijnor, Jhansi and Banda; and its area is 1,830 square miles; the School Circle includes Dehra Dun, Saharanpur, Tehri, Garwhal and the Punjab Hill States, with an area of 812 square miles; the Oudh Circle includes the districts of Pilibhit, Kheri, Bahraich, Gonda and Gorakhpur, and its area is 1,244 square miles. In each circle general working plans for the maintenance and improvement of the forests are in course of execution or preparation; and in addition North-West Provinces and Oudh.

FORESTS.

addition there is drawn up every year for each division a plan of the forest operations that it is proposed to complete in the course of the year. It is reported from all three circles that in 1892–93 the annual plans were well worked up to. In the Central Circle, which is the most advanced, the work of demarcation and survey is very nearly completed; in the Oudh Circle, which is comparatively backward, work of this kind was pushed forward vigorously, and in order to make clear the position of the Government with regard to land in this circle to which Forest Law is applicable, the records bearing on the subject were examined and republished. During the year it was decided to extend the Forest area of the Central Circle by making the Forest Acts applicable to the waste land in Garwhal, Almora and the Hill Districts of Naini Tal; it is reported from the School Circle that there is in Dehra Dun an an area of 8,638 acres of waste land still at the disposal of the Government for forest purposes. The measures for the protection of the forests from fire were remarkably successful in all the circles. The financial results of the year show a surplus of Rx. 73,014 as compared with Rx. 77,887 in 1891–92.

Punjab.

The area of reserved forests in the Punjab increased by 31 square miles; that of protected forests decreased by 272 square miles owing to the transfer of a large tract to the charge of the officer who superintends the colonisation operations in connection with the Chenab canal. The other State forests of the province increased by 186 square miles. In the work of demarcating reserves, 73 miles of new boundary line were made and 1,500 miles of previously existing lines were repaired, but of 14,000 miles of boundary, 8,300 have now been artificially demarcated, and in 1,100 the natural features make artificial demarcation unnecessary. Surveys were continued in the Himalayan forests of Kangra Kulu and Bashahr by the Survey Department; while in three districts the settlement staff carried on the survey of forest areas; working plans were under consideration for four forests, and were sanctioned for one and were being prepared for three. The attempts to prevent forest fires were more effective than in the previous year. In 1892–93 there were burnt 4 square miles as against 79 in 1891–92. The prosecutions for forest offences fell to 1,256, or 4 per cent. below the number for 1891–92. There was a slight decrease in the quantity of timber and firewood removed from the forests, which aggregated 29,974,000 cubic feet against 31,349,000 cubic feet in the previous year, and the total was very far below the out-turn of 1888–89, when the yield was 43,038,000 cubic feet.

The total forest revenue of the year was Rx. 92,057, against an outlay of Rx. 78,262, yielding a surplus of Rx. 13,794 which compares unfavourably with the surplus of two previous years, which were Rx. 37,980 and Rx. 17,086. The fall in revenue was attributed to the dulness of the timber market, which prevented the sale of any large stocks of timber.

Burma.

An area of 12 square miles was added to the reserved forests of Lower Burma, bringing the total area of reserves up to 5,615 square miles. In 430 square miles of the reserves the privilege of cultivating hill gardens has been secured for the forest tribes. Permanent boundary marks are maintained round all reserves. In Upper Burma proposals have been made for reserves, aggregating 5,311 square miles out of a total of 16,461 square miles of protected forests; private rights in 1,024 square miles were settled during the year; and the area of actual reserve was 1,059 square miles on the 31st March 1892. Nearly all the best teak forests are in the hands of people holding leases from the ex-king, and some of these leases run until the year 1906.

Detailed valuation surveys were completed over 287 square miles of forest, regular working plans were completed for areas aggregating 407 square miles. For other forests an annual plan of operations is prepared under the Forest Code, and, after sanction by the Conservator, is carried out, until such time as a regular survey and working plan can be made. In Upper Burma regular surveys and working plans cannot yet be undertaken; but linear valuation surveys are being made; rough surveys and working plans are being gradually prepared. In Lower Burma fire protection was very successful, by reason partly of the occurrence of frequent showers during the hot season; from 496 square miles of deciduous forest, or 99 per cent. of the protected area, fire was excluded, as compared with 368 square miles, and 83 per cent. in the preceding year. In the Upper Burma teak forests, where the rainfall is often less than in Lower Burma, no systematic efforts are yet made for the exclusion of fires save in two

or three small areas where comparatively little success was achieved. In Lower Burma the area of new plantations was 3,240 acres, 28 per cent. more than had been planted in the preceding year, but 600 acres of the new plantations in the Tenasserun failed; exclusive of this latter area the plantations, chiefly teak, now cover about 45 square miles. The teak worked out of the forests decreased by 3,153 tons in Lower Burma, and by 43,180 tons in Upper Burma as compared with the previous year; the decrease in Upper Burma was due to the early fall of the river. There was a decrease in the forest revenue and forest surplus, which for the past five years have stood thus:— FORESTS.

		Gross Forest Revenue.	Forest Surplus of Revenue over Expenditure.
		Rx.	Rx.
TOTAL for Upper and Lower Burma	1887-88	251,576	136,191
	1889-90	494,078	338,840
	1890-91	432,196	298,353
	1891-92	418,514	254,181
	1892-93	566,000	391,265

The arrivals of teak by the Salween river at Moulmein were 74,165 tons or 28,198 less than in the previous year; the arrivals at Rangoon by the Irrawaddy and Sittang rivers were 80,793 tons or 36,959 tons less. The export of teak from Burma by sea was 161,967 tons, as compared with 175,115 and 184,431 tons in the two preceding years. The fall in exportation does not appear to have been due to competition from Siam, as the exports of teak from Bangkok also fell off. Of the teak shipments from Burma about a quarter went to Europe. The average value of the teak exports was Rx. 7¼ per ton or a small fraction dearer than in the previous year.

The area of reserved forest in the Central Provinces remained unchanged at 20,373 square miles, of which 9,189 square miles were at the end of the year 1891-92 classed as A. or permanent reserves, and 10,884 square miles were classed as B. reserves. The B. reserves are available either for eventual transfer to the A. class, or for possible extensions of cultivation in future years; 158 square miles were so transferred from the B. to the A. category during the year. The demarcation of reserves made progress and was practically completed in all but two districts; the boundaries of all A. reserves were in good order. Surveys preparatory to the formation of working plans were being prosecuted in seven districts, but no progress was made with regular detailed working plans during the year. Out of the reported offences against forest laws 7,859 were compounded under sanction of competent officers, and in 239 cases prosecutions were undertaken, in nearly three-fourths of which convictions were secured; in some districts orders were issued that less stringency should be exercised in enforcing the forest laws against villagers, who are the chief customers for and consumers of forest produce. Fire was excluded from 94 per cent. of the 3,870 square miles over which fire protection was attempted, at a cost of 13¼ rupees per square mile. The area under protection was 635 square miles larger than in the previous year. The area of failure was 6 per cent. against 5 per cent. in the preceding year; and there was a decrease of 1¼ rupees in the cost of protection per square mile. No regular plantation work is attempted in the Central Provinces; natural reproduction of timber is said to be good in all forests so long as grazing and fires are excluded; even where cattle have not been excluded, the regrowth over a considerable part of the forests is said to be satisfactory; in some cases a few years of closer protection have produced a marked change in the character of the forest. The animals sent into the forests to graze were 2,939,856 against 2,820,556 in the previous year. The forest revenue of the year was Rx. 135,900, against an expenditure of Rx. 71,400, leaving a surplus of Rx. 64,500, or Rx. 8,100 more than in the preceding year. Increase of expenditure CENTRAL PROVINCES, 1891-92.

FORESTS.

expenditure was due to the enlargement of the forest staff. The increase of revenue was caused by a general advance in the quantity of charcoal, bamboos, and minor produce removed from the forests by consumers. Important changes were introduced during the year, with the view of suiting the forest system to the capacities and convenience of the people.

Assam, 1891–92.

The reserved forests in Assam were increased by 10 square miles, bringing up the total area to 3,612 square miles. Forest surveys were continued in the sal forests of Goalpara; topographical survey and valuation were completed for 180 square miles; but no permanent working plans were framed. Fire protection was not very successful; fires raged over 13 square miles, or 12 per cent. of the whole area over which attempt was made to exclude fire; most of the reserves consist of evergreen forest wherein fire protection is not needed. The boundaries of reserves are mostly streams, rivers, and roads; out of 1,164 miles of boundary line, 1,103 were cleared and properly maintained during the year. The plantations, principally planted with rubber, now cover 2,306 acres, of which 50 acres were stocked during the year. The oldest trees of the rubber plantations were put in 20 years ago; and many of these have attained a height of 50 to 67 feet and a girth of 6 to 10 feet. Natural reproduction and growth of forest trees is said to be satisfactory everywhere except in the sal forests of the Garo Hills. The attempt to induce the tribes, who cultivate with the axe, to sow their clearings with timber trees are not meeting with success. The yield of the Assam forests shows an increase, the total out-turn of timber and firewood being 4,855,000 cubic feet as compared with 4,554,000 in the preceding year; the total yield is still considerably below that of 1888–90. The yield of tea boxes, however, nearly doubled during the year. The export of rubber from Assam increased from 4,844 maunds in 1890–91 to 5,903 maunds; but it is still considerably below the totals of 1887–89. The quantity of bamboos taken from the forests during the year showed an increase of 8 per cent. under the head of free grants. The forest revenue was Rx. 33,600, and the forest surplus was Rx. 6,860, or Rx. 2,566 more than in 1890–91.

Ajmere and Coorg.

The area of the Forests of Ajmere-Merwara was about 140 square miles, as in 1891–92. The year was favourable for both natural and artificial reproduction. Progress was made with the preparation of the Record of Forest-Rights, and a report preliminary to the construction of working plans was drawn up during the year. The financial results showed a deficit of about Rx. 120 as against a profit of Rx. 581 in the preceding year. This change was due to the decrease in grazing fees and the increase in the expenses of the Forest Establishment.

Coorg, 1892–93.

The area of reserved forests in Coorg was 114 square miles, being slightly less than in 1892–93, besides 779 square miles of protected forests. During the year 371 miles of old boundary lines were cleared, 71 miles of new lines were cut, and old roads were repaired; old buildings were repaired and the construction of new was begun. Additions were made to the plantations of sandal, teak, and firewood. Owing to the recent extension of fire-lines there was a great decrease in the area burned during the year; the figures being, for 1890, 28,484 acres, for 1891, 16,274 acres, for 1892, 9865, acres. The number of cattle grazed in the forests was 17,245 as against 15,802 in the previous year; but the increase was prejudicial to the natural reproduction of the forests. There were cut and removed 342,311 cubic feet of timber, 220,900 cubic feet of fuel, 367,772 bamboos, 1,641 rupees worth of minor produce. The financial results of the year show a surplus of Rx. 10,758 as against Rx. 9,603 in the previous year. The teak and sandal-wood plantations have been attacked by the borer insect, on the extermination of which the future success of the plantations depends.

Madras.

An area of 2,441 square miles was added to the reserved forests of Madras during the year 1892–93, bringing the total area of reserves up to 9.436 square miles. There are about 7,700 square miles of other Government forests from which reserves have still to be selected. Permanent marks were placed along 2,837 miles of reserves boundary, as compared with 2,443 in the preceding year; and 2,627 miles of preliminary demarcation work were also done. Surveys of the reserves were continued by the Survey of India in the Madura, Salem, and Arcot forests, and 718 square miles were completed. Permanent working plans were prepared for two forests and two plantations, while statistics and information were being collected for working plans in several other reserves: meanwhile, for the plantations on the coast temporary working

plans

plans are being carried out. Fire protection was attempted over 5,100 square miles of which 95 per cent. were successfully protected, against 94 per cent. in the previous year. The cost of fire protection averaged 13 rupees per square mile for the 15 months ending 30th June 1893. Natural reproduction was satisfactory in all three circles, except in the casuarina plantations of Nellore and in certain reserves of the central and southern circles where fire protection had not been attempted. The additions to the plantations were confined to the southern districts; the total area of plantations was returned at 20,988 acres, besides 28,392 square miles of groves. The valuable timber plantations consist of teak in Malabar, eucalyptus on the Nilgiri hills, and casuarina on the eastern coast. The yield of the forests, according to the returns, was 2,966,566 cubic feet of timber, and 12,138,565 cubic feet of fuel, besides bamboos and other minor produce: the timber bamboos and fuel all gave smaller out-turns than in 1891-92; under the head of minor produce only was there some increase of yield. The forest revenue was Rx. 196,581 against an expenditure of Rx. 163,892, leaving a surplus of Rx. 32,689, or Rx. 10,200 less than in the previous year, and Rx. 22,000 less than in 1890-91. FORESTS.

The area of reserved forests in Bombay was 10,321 square miles, or 151 more than in the preceding year, 1891-92. The protected State forests outside the reserves were returned at 4,197 square miles. There remained still 1,176 square miles of reserves and 2,987 square miles of protected forests, in which private rights have not yet been settled and recorded. This business was effected over only 56 square miles during the year. Forest surveys were carried out over 434 square miles of reserves at a cost ranging from Rx. 12 to Rx. 20 per square mile; working plans are as yet ready and sanctioned for a part of the Thana forests only. There was an increase of 22 per cent. in the number of forest offences; the number of prosecutions was 1,549, against 1,689 in the previous year, and in 78 per cent. of the cases convictions were obtained; and 15,581 offences were compounded by competent officers under the law. Fires traversed 1,914 square miles, or 21 per cent. of the total forest area of the northern circle against 22 per cent. in the previous year; in the southern circle 25 square miles suffered from fire out of 1,046 square miles over which protection was attempted, while fires traversed 26 per cent of the area of the forests not specially protected; eight square miles out of the Sind forest reserves were burnt. Natural reproduction is said to have been satisfactory in all areas from which fire was excluded. In the northern circle the regular plantations increased from 6,096 acres to 6,683 acres, while cultural operations extended over 318,420 acres of hill-side against 291,817 acres in the previous year; on some of these formerly bare hill-sides very satisfactory forest estates are being formed. There was a large increase in the yield of petty timber and firewood from the *coupes'* in the northern circle; but the badness of the season greatly reduced the demand for forest produce of most kinds in the southern and Sind circles. The total receipts of the three forest circles of Bombay were Rx. 328,000, against an expenditure of Rx. 192,000, leaving a surplus of Rx. 136,009, or Rx. 7,500 less than in the previous year. The receipts from grazing dues showed an increase of 20 per cent., and amounted to Rx. 58,600. Bombay, 1892-93.

The forest area of Berar is 4,233 square miles, of which 1,322 are reserved for timber and fuel, 63 for fodder and thatching grass, and 1,598 for pasture, while over 1,250 square miles settlement is still pending. The area decreased by 203 square miles during the year, 3,183 square miles having been added and 2,980 having been excluded. The revenue showed a general falling off. The expenditure rose considerably, the chief increase being in outlay on buildings and communications. 32 miles of new cart-roads were made and 326 miles were repaired. Fires were excluded from 763,545 acres out 792,626 acres attempted, at a cost 7-2-0 rupees per acre. During the year the Berar Forest Law of 1886 came into operation. Natural reproduction shows a marked advance in the Ellichpur Division, where the soil is good and where there is adequate protection against fire and grazing. Berar.

IX.

AGRICULTURE AND MINERAL RESOURCES.

Agriculture

In every large province of India an Agricultural Department has been organised, which is charged with the duty of supervising the maintenance of the village records of land tenures, rent, produce, and land transfers, and with the work of organising and directing State undertakings for the furtherance of agriculture, and for the improvement of stock. The Agricultural Departments also assist the local officers to keep the public and the Government informed concerning the condition and the out-turn of the crops, the range of prices, and the approach of dearth or famine in any particular tract. It is chiefly from information contained in the annual reports of the Agricultural Departments that this chapter has been compiled.

Bengal.

The rainfall of 1892-93 in Bengal was below the average in six out of the seven groups of districts of the Province. The deficiency was greatest in south-west Bengal, when the monsoon rainfall was 17 per cent. below the normal supply. The early autumn crops covered 16 million acres, the winter rice harvests over 30 million acres, and the spring crops larger areas than in the preceding year; the out-turn for each crop was estimated at seven-eighths of a full average yield, or considerably better than in the year 1891-92. The prices of staple food grains were higher than in the previous year; labourers, whose wages are still very low in Behar and Western Bengal, and respectable folk of the lower middle classes felt the pinch of high prces. But in Northern and Eastern Bengal, where the wages of labour range at two to three times the Behar rate, and where crops were good, the people were prosperous. In the greater part of Chota Nagpore, too, the year was marked by prosperity, especially in Singhbhum, where the newly-opened railway and mining industries had caused a rise of wages. But in Behar the distress due to previous failures of harvests continued, and relief operations did not entirely cease until the favourable rains of September 1892 set anxieties at rest.

Silk.

The silk experiments, undertaken with the view of mitigating or eradicating the disease of pebrine among silkworms were continued by Mr. Mukerji, who had been trained at Cirencester and Lyons, at the Pasteur Institute in Paris, and also in Italy. He worked under a committee consisting chiefly of persons interested in the Bengal silk industry. Out-stations for raising healthy industrial seed from microscopically selected seed were kept up at five places away from the silk districts, where the disease would not be in the air. The eggs reared at experimental stations were bought by about one thousand cocoon-rearers and gave healthy silkworms in almost every case. The distribution of large quantities of healthy seeds is expected to appreciably affect the produce of silk in Bengal.

Agricultural experiments

On the Doomraon Maharajah's experimental farms in the Shahabad district of Behar, the use of saltpetre on previously unmanured land increased the out-turn of sugar-cane per acre by 125 per cent., and converted the average loss of Rs. 6 a. 2 p. 4 per acre on unmanured lands into a profit of Rs. 84 a. 9 p. 7½ per acre. The value of ashes and burnt bones as alternative forms of manures was also demonstrated. As regards methods of planting, the experiments again showed the superiority of the Mauritius trench system over the local method of planting behind the plough. For wheat the use of the soil-inverting plough gave a profit four times as great as the country plough, and on irrigated land crude saltpetre was again found to be one of the most profitable manures. For maize and potatoes experiments showed the value of green manure and bone meal. The model farm of 30 acres, which the Maharajah has made over to a trained Bengali agriculturalist with a view of ascertaining whether the lessons drawn from the experiments of the last few years will make it possible for a farm of small size to become remunerative, showed in spite of very great disadvantages of season a net profit of 7 per cent. after allowing for rent, interest on outlay, and depreciation of stock.

On the Seebpore experimental farm sorghum was grown for fodder with encouraging results, green manure was used for wheat, and the crop that resulted

was

was hardy and abundant; the method of drilling and dibbling the seed was shown to be a great improvement on the native method of sowing behind the plough. The cultivation of oats, a crop otherwise unknown in Bengal, was introduced on the farm; the out-turn was large, but the quality was defective; an attempt is to be made to improve the quality, by the importation of foreign seed and by careful selection and cultivation. Tobacco from Kentucky, Virginia, and Havana was sown, and three native varieties. The American seed failed to germinate, but the other four kinds gave good results. AGRICULTURE.

At the experimental farm on the Maharajah of Burdwan's estate, sugar-cane experiments resulted in a profit of Rs. 105 per acre, from land manured with a mixture of bone meal and castor cake. The Mauritius system of planting gave an increase in profit over the local system equal to three times the additional outlay. Several kinds of green fodder were grown; the increase of yield from sorghum fodder manured with bone meal, led to an increase in out-turn of the estimated value of Rs. 18-12 per acre, the cost of the manure being Rs. 5-10 per acre. Hitherto the general absence of any fodder crops has been a serious obstacle to stock-raising and a drawback to Indian agriculture generally. A manure of cow-dung and castor cake gave a hitherto unequalled out-turn of potatoes per acre.

Crushing bones for manure, which was two years ago made a staple industry for Moslem convicts at the Jalpigoree jail, has now been introduced into the jails at Darjeeling and Saran. Careful trials at the Seebpore farm showed that crushing bones with a pounder worked by human labour was 15 per cent. cheaper than crushing bones in a mill worked by steam. But the neighbouring cultivators have not shown any interest in the manure, in spite of the success of the experiments which have been tried with it.

Efforts to introduce improved ploughs have not been generally successful. Experiments on a smaller scale were conducted on Ward's estates, and on Government estates, under the supervision of the officers of the Agricultural Department. The new crop in which the most general success was obtained was potatoes.

A new method of preparing date-sugar by boiling date juice in deep earthen pans instead of shallow iron pans was tried in Jessore, with results so promising that the method of manufacture is to be applied on a large scale in the coming season.

Eight agricultural exhibitions were held in the Province during the year.

The 106th annual report of the Calcutta Botanical Gardens shows that more than 15,000 specimens were added to the herbarium, among which the principal contributions were from the Kew Herbarium, and from other herbaria in Europe, Asia, Africa, and Australia, as well as from General Sir Henry Collett and other collectors. Collections and botanical explorations continue to be made by persons trained at the gardens, in Assam, Burma, the Andamans, Sikkim, and on the Tibetan frontier.

The efforts made during the year in the North-West Provinces to reclaim *usar* land, or soil impregnated with salt, continue to show, on the four plots under treatment for several years, that mere inclosure, with the hope of securing a good growth of grass or brushwood, does not answer. But embanking, ploughing and manuring have answered fairly well; one plot was sold during the year to a farmer at a price that more than covered the net outlay on reclamation. On another, 43 acres of reclaimed land were let to a tenant at a rent of eight rupees per acre. As grass lands for hay or grazing, or as fuel plantations, the reclaimed plots have not succeeded. North-Western Provinces and Oudh.

Five private experimental farms and one Agricultural Association were at work during the year; they were all visited by the Director of Agriculture or his assistant. Experiments of value were made with different kinds and varying quantities of manure, also with many kinds of seeds and implements. Mr. L. Persad's farms used means such as an ordinary cultivator could easily adopt: he got yields of potatoes as high as four tons two cwt. to the acre. He showed that by embankment, careful tillage, and good management the condition of poor soil could be improved. And on all these farms useful object lessons were given to ryots of the neighbourhood.

The Seharunpore and Mussoorie Botanical Gardens suffered from the unusually long hot season, from the early cessation of the monsoon

AGRICULTURE.

rains, and from unwonted cold and damp during the winter. The yield of mango fruit was very large, but the harvest of other fruits was poor and strawberries failed. The price of fruit is said to be considerably lower than it was some years ago, in consequence of the large number of gardeners who have taken part in the industry. The demand for trained gardeners continues to be large; 12 were sent out from the gardens during the year, but more were wanted. The number of trees, plants, and seed packets sold or distributed was 96,315, considerably above the previous year's supply for every kind except strawberry plants. So far as the year's experience went, the date-palms, the foreign apples, and peaches failed; not one of the sugar-cane seeds that were sown germinated, but further experiments will be made in reproduction from seed instead of from layers. The successes of the year were with imported maize, with specially large brinjals, with sissal, hemp, and with flower bulbs. The two gardens cost Rx. 2,058, and their receipts, including credits for supplies to medical depôts and to soldiers' gardens, were Rx. 2,161. The gardens are abstaining from experiments with ordinary cereals, cotton, and agricultural crops, which can be better done at the Cawnpore experimental farm, and are being devoted more and more to acclimatising foreign staples and to producing trees, plants, and acclimatised seed for distribution.

Though the season was not favourable, the Lucknow Horticultural Gardens covered 93 per cent. of their cost, by realisations from the sale of trees, plants, seeds, and produce. The number of fruit trees, ornamental trees, and packets of seed, distributed in the Province from these gardens was 28,161, or 63 per cent. more than in the preceding year.

On the Cawnpore experimental farm managed by a Mahommedan officer, trained at Cirencester, the results of the year were not satisfactory. The rains set in late and were abnormally heavy during August and September. Experiments were, as in past years, confined to maize, cotton, and wheat, and were intended to determine the effect of (1) different manures; (2) deep ploughing; (3) early and late sowing; (4) different methods of sowing; (5) the use of sulphate of copper as a preventive of rust in wheat. The maize experiments were inconclusive. With wheat the plan financially most successful was to plant indigo, sell the crop for dye, and to plough in the roots as manure. Nine years' experiments have demonstrated the economy of using an improved plough for wheat, without particularly deep furrows. Early sowings of maize and cotton were found to pay; on canal-watered lands; sowings a whole month before the rains yielded good results. The experiments with sulphate of copper were inconclusive and will be renewed. The average yield of maize on the farm was only 15½ bushels per acre, and of wheat 19 bushels, against 19½ bushels and 21½ bushels respectively per acre in the previous year.

Punjab.

The rainfall in the Punjab was plentiful and the season was favourable for wheat. Both the autumn and the spring crops showed a great advance on the previous year. The area under autumn crops increased by three-and-a-quarter millions of acres, or 37 per cent.; while the area under spring crops increased by more than two millions of acres, or 16·3 per cent. The total area under wheat was returned at 7,400,060 acres. The price of the superior autumn grains rose as compared with the previous year, owing to the fact that the autumn harvest was better in quantity than in quality; but the coarser autumn grains, and the spring produce generally, showed a fall in price. The price of wheat was low, but in consequence of the bad prices prevalent in England there was little export. There left the Province during the first three-quarters of the year only one-sixth of the amount that was exported in the same portion of the preceding year.

Cattle diseases of various kinds broke out in several districts during the year. Rinderpest caused a loss of 6,000 head of cattle.

The Civil Veterinary Scheme, under which the Province obtains the services of two veterinary superintendents and half the services of a third, in place of a single veterinary surgeon to Government, came into force during the year. The arrangements for providing professional superintendence over the subordinate veterinary establishment throughout the Province are now in working order. At the Lahore veterinary school the number of students at the close of the winter session was 89. The results of the examination held in April 1893 were very creditable; out of 56 candidates, 36 obtained first-class and 13 second-class certificates.

certificates. The number of indoor and outdoor patients under treatment continues to increase. AGRICULTURE.

The rainfall of 1892–93 was above the average in all districts but one of the Central Provinces. The early crops of cotton and millet, and the late crop of wheat in the southern part of the Provinces suffered from excessive rain; but, taking the year as a whole, rice, cotton, linseed, and wheat were all satisfactory, the wheat crop being 10 per cent. above the average. The four chief food-grains—wheat, rice, jowari (greater millet), and gram (horse-pea) were, during the greater part of the year, dearer than in the corresponding months of the preceding year. Returns of crops cultivated are available for an area of about 66,000 square miles out of the total of 116,000 square miles; out of that area 36 per cent. was under crop, and 5 per cent. was returned as "current fallows." Of the cropped area, 25 per cent. was under wheat, the same proportion under rice, slightly more under other food-grains, 8 per cent. under linseed, and 4 per cent. under cotton. The progress of survey, which is continually extending the area for which detailed statistics are available, make it impossible to compare together the figures for a series of years. Central Provinces.

On the Nagpur Experimental Farm, experiments are being carried on continuously over a series of years, separate plots of ground being appropriated for each. One fact that has thus been demonstrated by lengthy trials is that manure without irrigation scarcely pays in increased out-turn for its own cost; and this explains the small use that is made of manure in the wheat-growing tracts of the Nerbudda Valley. In combination with irrigation, however, saltpetre, cattle-dung, and other kinds of manure are profitable. Interesting experiments were made to test the advantages of deep ploughing, of heavy sowing, and of the use of green soiling. Cotton, also, both long-stapled and short-stapled, was grown on the farm; and the results were such as to render doubtful the truth of the common opinion, that the short-stapled variety is less profitable to the ryot. Observations were made with reference to the damage caused to wheat crops by trees growing near them; and the conclusion suggested was that the damage is caused, not, as is generally supposed, by the shade, but by the presence of the roots in the soil. Some crops were protected by the digging of trenches round the bamboos and mango trees near them, so as to cut off the surface roots; and the measure was effective.

The condition of agricultural class attached to the farm is generally satisfactory; but students join simply as a means of obtaining Government employment.

The season of 1892–93 was favourable in Lower Burma, and the rice crop in that Province was good. The total area under rice was 5,086,853 acres, while the total area under all other crops was 520,279 acres. The increase in the area under rice was nearly 10 per cent., and there was a considerable extension in the cultivation of sesamum and tobacco. The exports of rice by sea to places outside Burma reached 1,285,000 tons in the year 1893, and exceeded the amount reached in any previous year. Burma.

In Upper Burma the rainfall was heavier than it had been in the two preceding years, and the harvest was, on the whole, better. The imports of rice from Lower Burma reached 112,189 tons, or 40,000 tons less than in the preceding year.

In Lower Burma there was a remarkable fall in the price of rice in 1892-93. At the end of the previous year it had gone as high as Rs. 138 for 100 baskets in Rangoon; in 1892–93 it was from Rs. 76 to Rs. 79 for the same amount. In Upper Burma there was a general fall, not so sudden as that in Lower Burma, but yet as great as 30 per cent. in some cases.

There were 41,943 acres of new grazing ground marked off during the year in Lower Burma. Cattle disease was less severe than in the previous year, and in Lower Burma the number of deaths was 2,000 less.

The rainfall of Assam was about 3 per cent. above the average of the preceding five years, but its unequal distribution injuriously affected several districts. The rice crop was generally fair, but the season was unfavourable for tea. Prices of food ruled high in consequence, partly, of the bad harvests of the previous year, and partly of the rise in the neighbouring province of Bengal. The potato crop in the Khasi Hills was found to have been attacked by the common potato rot of Europe. In some districts cattle disease was rife, the Assam.

AGRICULTURE.

number of deaths reported being 154,290, an increase of 43,300 on the previous year; the resulting loss was estimated at Rx. 126,303, an increase of Rx. 51,667 on that of the previous year.

Crop experiments have been carried on as in preceding years. The chief results with rice have been that the average yield per acre of rice in husk was, in the Brahmaputra Valley, from 1,049 to 1,374 lbs. according to the variety planted; in Sylhet 1,141 lbs. for early rice, and 1,517 lbs. for later varieties; in Cachar, 1,223 lbs. for early rice, and 1,592 lbs. for later; in the Khasi Hills 755 lbs. for upland rice and 946 lbs. for lowland; in the Garo Hills 1,625 lbs. for one of the varieties, and 869 for the other. The net result of sugar cane experiments up to date has been to show that cane yields 47·4 per cent. of its weight of juice, and 8·25 per cent. of its weight of "gur" or molasses, and that the yield of "gur" per acre is 1,470 lbs.

Madras.

The season in Madras during 1892-93 was unfavourable. At the beginning of the year, before the setting-in of the south-west monsoon, and again at the end of the year when the north-east monsoon failed, there were long periods of severe drought. In consequence large advances, amounting to Rx. 227,500, as against Rx. 168,566 in the preceding year, were made under the Lands Improvement Loans Acts and the Agriculturists' Loans Act, and were in very many cases used for well-sinking. Minor irrigation works were carried out at a cost of Rx. 36,404, in addition to the larger schemes under the charge of the Public Works Department.

The season caused severe suffering among cattle in the early part of the year. But the figures concerning disease and death, though they showed an increase over the preceding year, were yet well below the average. Among the bulletins issued by the Madras Agricultural Department were memoranda on the names of the field-crops growing in the Presidency, on the Palmyra palm and its uses, on sugar mills, and on grass-farming in Coimbatore. The more noteworthy results of agricultural experiments during the year are that a small quantity of seed potatoes planted on the Palni Hills gave a fair crop, that palmyra fibre prepared in South Arcot has been found to be valuable for brush-making, and that a considerable export trade in the fibre has sprung up in various parts of the Presidency. In Trichinopoly, attention has been drawn to an extensive deposit of phosphatic nodules, which may eventually be of value for use as manure.

Bombay.

The rainfall in Bombay was generally heavy, and in some parts excessive. The harvests were on the whole good, and prices fell through a large portion of the Presidency. The gross cropped area showed an increase at 3·8 per cent. compared with 1891-92. The new staff for maintaining and correcting year by year the village records of the cadastral survey was further extended during 1892-93, and classes for the education of the officers in survey work were held in nearly all the district head-quarters. The inspection of villages and of crops was carried on satisfactorily through the year.

The Bhadgaon experimental farm, the success of which was prejudiced by the inaccessibility of the site and the dearth of labour in the district, was sold during the year to a private purchaser at a satisfactory price.

The chief results attained during the year by the experiments conducted on Government farms or by private cultivators, were that arrowroot was raised and sold at Ratnagiri, strawberries at Mahábaleshvar, and indigo at Junāgadh. It was found that copper sulphate solution protected sound potato plants from disease, but that the only general remedy was the distribution of robust seed. For this purpose some help has been granted by the Government. At the Poona farm experiments were made to test the feeding value of various fodder-crops. Guinea grass and various kinds of jowāri gave the best results. The dairy herd kept on the farm yielded a good profit.

Government loans to cultivators for permanent improvements and the purchase of seed and cattle, amounted to 6¼ lakhs, and though rather less in amount than those of 1891-92, a year of widespread distress, were double those of 1890-91, and four times those of 1889-90. The local Government reports that cases of misapplication of the loans have been very few. Horse shows were held during the year at Ahmednagar, and at Jacobabad in Sind. The number of exhibits in the former place showed an increase of more than 100 per cent. over the last show held there, and in the latter an increase of 50 per cent. over the last show held in Sind.

Both

Both the early and the late crops in Berar suffered from excessive rainfall. The total area under cultivation was about 3 per cent. larger than in the previous year, being 7,659,046 acres. The area assessed and available for cultivation was 8,073,883 acres; the area of the Province is 10,296,347 acres. A third of the cultivated area was under millet, about the same proportion under cotton, and a seventh under wheat. There was, as compared with the preceding year, a decrease of 2 per cent. in the proportion of cultivated area under cotton, and a corresponding increase in the area under food-crops. Wheat fell slightly in price, jowari, the staple food of the people, rose 25 per cent., and rice and gram, which is cultivated over 250,000 acres, both rose slightly.

HORSE BREEDING.

In 1891-92 the Civil Veterinary Department took over the management of horse-breeding operations which were formerly under the direction of military officers. The staff of veterinary surgeons concerned with this business is distributed over the several provinces where horses and mules are bred. These officers in conjunction with the district authorities and local Boards organise and control operations for combating cattle disease, and help in instructing Natives at veterinary colleges. In some parts of India as, for example, through the greater part of the Presidency of Bombay, a staff of inspectors is employed by the department to revise the muster of mares branded as fit for use with Government stallions. The returns of agricultural stock are not complete for all provinces; but the total number of horses and ponies in British India is approximately about 1,300,000, while the number of mules and donkeys is about the same. The North-West Provinces and Oudh return 489,000 horses and ponies and 336,000 mules and donkeys: while the Punjab returns 493,000 mules and donkeys and 226,000 horses. The number of stallions kept by Government for horse-breeding in the year 1892 was 344. The most numerous class of stallions is that of the Norfolk trotters, of which there were 128, and the next is that of the Arab sires which number 106; the Norfolk trotters are popular with Native horse breeders, and their stock win more prizes in proportion than the stock of any other class of stallion.

The number of mares branded for use with Government stallions was 25,537 at the end of March 1892, of which 7,426 in the Bombay Presidency were registered for pony breeding only. Each stallion covered an average of 39 mares during the year; the average number of foals dropped to each stallion employed during the year was 12½; thus about one-third of the coverings resulted in foals. The number of donkey stallions remaining at the end of the year was 312, of which 130 were Italian animals. The number of pony mares covered by Government donkeys during the year was 17,583, and 4,758 mules were reported to have been foaled during the year, or ten per cent. more than in the previous year. From most of the horse and mule breeding districts it is reported that a strong demand exists for more stallions; and it is said that the district boards as well as civil officers are giving much attention to the improvement of horse breeding.

In the Punjab the number of Government horse stallions at work during the year was 108, and of donkey stallions 188, against 121 and 186 in the previous year; the number of mares branded for horse breeding rose from 9,452 to 9,683. The number of mares covered by horse stallions was 5,352; and the average number of foals dropped per stallion rose from 12¾ to 15¼. The number of mule foals dropped during the year was 3,171 or 17 to each donkey stallion. The number of horses, mules and donkeys brought to 18 fairs during the year fell from 26,231 to 25,750. It is reported that "the horse stock now seen at "the fairs, and especially those that are put forward as competitors for prizes "are of decidedly superior quality to those of former years." The number of horses bought at the Punjab fairs for army remounts was 691. District boards and other bodies keep 30 stallions in addition to the Government stock.

In Bombay and Sind, there were 94 horse, and 23 donkey stallions at work; the number of mares branded for horse breeding was 3,109. The average proportion of foals dropped to mares covered was 40 per cent. At the chief horse show in Sind 1,365 horses, or 50 per cent. more than in the preceding year, attended, and 80 remounts were bought at an average price of Rx. 23; the number of mules shown at this fair fell to 98 as compared with the previous year. The horse shows of the Deccan were also successful, with 237 and 325

AGRICULTURE.

horses each. The cost of keeping a horse stallion averaged Rx. 38 in Bombay and Rx. 29 in the rest of India; while the keep of a donkey stallion came to Rx. 25 in Bombay and Rx. 14 in the rest of India. The total charge of the horse-breeding department, including prizes, the cost of new stallions, &c., was Rx. 29,000 during the year.

Officers of the horse breeding and remount departments attended at all the more important horse fairs, and the reports of the judges show that almost everywhere the number and character of the young stock continue to advance. The total number of horses and mules brought to 28 of the chief horse fairs of northern India was 56,466, as compared with 54,648 in the previous year. The number of horses bought at these fairs for mounted branches of the public service was 1,167, at prices ranging from Rs. 625 to Rs. 120, and averaging about Rs. 280. A sum of Rx. 3,280 was expended in prizes at horse-fairs, two-fifths of which were contributed by local boards.

AGRICULTURAL PRODUCE.

WHEAT.

The ascertained and estimated area under wheat is given thus :—

	Normal Wheat Area for recent Years.	Areas cultivated with Wheat in	
		1891-92.	1892-93.
	Acres.	Acres.	Acres.
Punjab	6,505,000	6,224,000	7,123,000
North Western Provinces and Oudh	4,901,000	4,692,000	4,641,000
Central Provinces	4,077,000	3,904,000	4,337,000
Bombay	2,516,000	2,176,000	2,413,000
Sind	475,000	483,000	597,000
Berar	906,000	888,000	985,000
Bengal (estimated)	1,728,000	1,300,000	1,421,000
Rajputana	1,562,000	1,471,000	1,604,000
Rest of India (estimated)	3,891,000	3,344,000	3,117,000
TOTAL	26,561,000	24,452,000	26,238,000

The seasons of 1892-93 were favourable to wheat cultivation. The sowing season was propitious everywhere. In the North-West Provinces, Oudh, Sind, and the Punjab, the abnormal rain of February and March benefited the standing crop. But in the Central Provinces and Berar, where the harvest is earlier, the exceptional wetness of the season injured the wheat, and the crop was poor. On the whole, the wheat yield was computed to have averaged about one bushel above the normal out-turn of nine bushels per acre. Prices of wheat, which had been very high during the year 1892 and at the beginning of 1893, fell considerably in Northern India in consequence of the good harvest. The wheat exports of the past few years have been :—

1,047,000 tons in	1883-84	689,000 tons in	1889-90
1,053,000 „	1885-86	1,515,000 „	1891-92
677,000 „	1887-88	749,000 „	1892-93

During 1891-92 the wheat exports rose greatly in response to a demand caused by dearth in Eastern Europe. In 1892-93 the American crop was abundant, and there was less demand for Indian wheat. It was computed that the total wheat exports represented about 14 per cent. of the out-turn of the year in India.

OILSEEDS.

The area under, and the yield of, the main oilseeds crops—namely, linseed, rapeseed, and mustard, for all India is given thus :—

	Normal Year.	1891-92.	1892-93.
Area in acres	17,179,000	17,513,000	17,096,000
Yield in tons	968,000	1,022,000	1,102,000

The

The yield was best in the rapeseed area of the Punjab and Bombay, but on the whole the year was favourable for these crops. The heavy rain of February and March injured the linseed plants in the Central Provinces and Berar. The exportations of linseed were only 390,000 tons, against 543,000 tons of rape and mustard. The value of the oilseed and exports during the year 1892-93 was Rx. 7,415,000, or about the same as the value of the year's wheat exports, which came to Rx. 7,440,000. AGRICULTURE

The rice harvest in 1892-93 was up to the average in Burma, which yields the greater part of the exportable rice-surplus, but was below the average in Bengal and Madras; in some parts of these Provinces it did not exceed half an average crop. The total normal area under rice in British Provinces is said to be about 59,000,000 acres, of which 32,000,000 belong to Bengal, 5,750,000 to Burma, and the same area to Madras; the Bengal rice area is said to have shrunk to 30,000,000 acres in 1892-93. The total quantity of rice exported from India and Burma beyond the sea was 1,396,000 acres, or 10 per cent. below the total of the preceding year. Three-fourths of the exports came from Burma; nearly half the exports were sent to Europe, and most of the remainder to further Asia. The quantities of cleaned rice, as distinguished from cargo rice, despatched from Burma continue to increase, and constitute now nearly two-thirds of the Burma exportations. The price of rice ruled somewhat lower at the rice ports, but the great fall in price which has marked the rice market during 1893 did not set in until April 1893. RICE.

The Indian export duty of three annas per maund on rice yielded to the Indian Treasury Rx. 727,000 against Rx. 900,000 during the year 1890-91, the highest figure ever reached. Siam and Saigon, which with Japan constitute the only other considerable rice-exporting countries of the world, levy about the same rate of duty. The exports from these countries in 1892 and in 1893 to Europe were 249,000 and 286,000 respectively, against Burma's exports to Europe of 778,000 and 738,000 tons in the two years, and Bengal's export to Europe of 64,000 and 44,000.

The area under cotton is returned at:— COTTON.

	Normal Area.	1892-93.
	Acres.	Acres.
Madras	1,700,000	2,008,000
Bombay and Sindh	2,727,000	3,001,000
Bombay Native States (estimated)	2,666,000	2,566,000
North West Provinces and Oudh	1,499,000	1,311,000
Punjab	762,000	939,000
Central Provinces	631,000	692,000
Berar	2,231,000	2,202,000
Nizam's Dominions (estimated)	900,000	900,000
Central India (estimated)	290,000	290,000
Rajputana (estimated)	548,000	588,000
Other Provinces (including Bengal) and Native States (estimated)	1,335,000	1,335,000
TOTAL	15,189,000	15,832,000

The season was unfavourable for cotton, and the yield was below the average everywhere. The short harvests were due mainly to heavy or unseasonable rain. The total yield of cotton in British and Native India in an ordinary season, at an average rate of three-quarters of a cwt. per acre, would be about 11,874,000 cwts. The area under cotton in India, despite low prices and three successive bad seasons, continues to be very large. Cotton is still the most important non-

AGRICULTURE.

non-food crop of India, and it will be remembered, as evidence of the value of this crop to the Indian peasant-farmer, that the cotton crop of Berar in 1889–90, most of which was exported, fetched more than thrice the whole land revenue of the entire province.

The exports of raw cotton from India were :—

1884–85 - -	5,066,000 cwts.,	valued at Rx.	13,286,000
1886–87 - -	5,432,000 „	„ „	13,468,000
1888–89 - -	5,331,000 „	„ „	15,046,000
1889–90 - -	6,325,000 „	„ „	18,669,000
1891–92 - -	4,424,000 „	„ „	10,754,000
1892–93 - -	4,789,000 „	„ „	12,743,000

TEA.

The cultivation and the production of tea in India for the last three years show :—

	Area growing Tea, in Acres.		
	1890.	1891.	1892.
Bengal - - - - - - -	85,573	90,815	92,852
Assam - - - - - - -	231,038	241,823	247,192
Madras - - - - - - -	5,738	5,481	5,694
North Western Provinces - - -	8,766	9,374	9,374
Punjab - - - - - - -	9,229	9,011	9,091
TOTAL - - -	340,344	354,504	364,203

The yield per acre was returned at 394 lbs. in Assam, somewhat higher than in the previous year, and at 399 lbs. per acre in Bengal, or 5 per cent. less than in the previous year. The tea yield per acre fell 10 per cent. as compared with the preceding year in Assam, by reason of the unfavourable weather which prevailed all over the province. In the Bengal tea gardens the season was prosperous. The total exports of India tea are returned at,—

78¾ million lbs. in 1886–87 | 120 million lbs. in 1891–92
107 „ „ 1890–91 | 114¾ „ „ 1892–93

Owing to a rise in price, the value of India's tea exports in 1892–93 was Rx. 6,292,000, or Rx. 324,000 more than in 1891–92, when the quantity exported was 5 per cent. larger. Australia took 3 per cent. of India's tea exports, against 5 per cent. in 1890–91 ; 1 per cent. was sent to Persia, and the rest went to the United Kingdom.

According to the British returns the importations of tea into the United Kingdom have come from China, India, and Ceylon in the following proportions :—

In the Year	From China.	From India.	From Ceylon.
1865 - - - - - -	93 per cent.	2 per cent.	0 per cent.
1870 - - - - - -	89 „	9 „	0 „
1875 - - - - - -	86 „	13 „	0 „
1880 - - - - - -	76 „	22 „	0 „
1885 - - - - - -	66 „	30 „	2 „
1890 - - - - - -	33 „	46 „	19 „
1892 - - - - - -	24 „	47 „	28 „

In 1892 the tea from China was imported at an average price of 8¾*d.* per lb., while Indian tea averaged 10½*d.* per lb.

The

The area under coffee shows a small decrease, as compared with the previous year's figures, thus :—

	1888.	1891.	1892.
	Acres.	Acres.	Acres.
Coorg - - - - -	82,335	62,230	59,985
Madras - - - - -	56,094	68,911	68,209
Mysore - - - - -	113,116	125,747	125,747
Travancore, Cochin, &c. - -	8,751	5,988	8,527
TOTAL - - -	260,296	262,876	261,468

The yield of coffee per acre may be taken at from 3 cwts. for the best European plantations in full bearing to ½ cwt. for inferior Native plantations. The coffee crop of 1892 was good in Coorg and Southern India. The total coffee exports from India were 296,617 cwts. in 1892-93, as compared with 311,864 cwts. in the previous year, and 233,451 cwts. in the year 1890-91.

CINCHONA. Bengal.

On the Government plantations of the Darjeeling district in Bengal there were, at the end of the year, 4,331,000 cinchona trees, or 100,000 less than in the preceding year. Of the existing trees nearly four-fifths are of the pure quinine-yielding variety, and less than one-quarter belonging to the cinchonine-yielding variety. During the year 466,000 trees were uprooted for their bark or died, while 184,000 were planted out; all the new plantations have for some years past consisted of quinine-yielding varieties. The harvest of dry bark was 304,000 lbs. The factory produced during the year 3,481 lbs. of cinchona febrifuge and 5,242 lbs. of sulphate of quinine. Quinine is now sold to public institutions and Government offices at one rupee per ounce, while the febrifuge is sold at 10 annas per ounce. The issues from the factory were 3,647 pounds of febrifuge and 5,518 pounds of quinine. The sales and issues of medicine during the year yielded a profit of Rx. 317, after meeting all charges for maintaining the plantations, renewing plant, and working the factory. As soon as the remaining million of red bark trees are used up, it is intended to manufacture only quinine, and to cease making cinchona febrifuge at the Darjeeling factory. The capital cost of the plantation had been repaid by the sale of cinchona drugs in previous years. During the year 1892, 475 lbs. of quinine were put up in 5-grain doses; each dose is carefully packed, and bears simple instructions in one of the vernacular languages of Bengal. The packets are made up by the jail department; and they are issued to local post-masters who, for a small commission, retail them to the public at one pice (one farthing) per packet or dose. As yet the arrangement has been made for Bengal only; when it is extended to other provinces, the demand for quinine, thus brought in convenient shape, and in an absolutely pure state, to the doors of the people is expected to increase indefinitely. Ample ground has been reserved for extending the Darjeeling plantations.

Madras.

In the Government plantations on the Nilgiri Hills in Madras the cinchona trees are almost all of the quinine-yielding varieties. Drought and the absence of sunshine made the year 1892-93 unfavourable for cinchona cultivation on the Nilgiri Hills. The plantations and nurseries were kept in good order; but there was no demand from outside for seed or for plants. The stock of dry bark in hand at the beginning of the year was 416,000 lbs.; the harvest of the year was 119,000 lbs.; the consumption of the factory was 172,000 lbs., and 2,000 lbs. were issued in the shape of bark. The produce of the factory during the year was 4,933 lbs. of quinine, and 3,139 lbs. of cinchona febrifuge; 3,204 lbs. of the former, and 2,600 lbs. of the latter were sold or issued to Government and municipal or local departments. The number of quinine powders issued to the public by collectors of districts rose to 170,000, from 37,000 in the previous. The expenditure on the plantations during the year was Rx. 7,900, and the receipts, exclusive of the packets sold by collectors, on account of quinine and febrifuge, were Rx, 7,300.

The area under cinchona on private plantations outside Bengal is returned at 10,862 acres, nearly all of which are in Madras. The exportation of cinchona bark from India by sea, which was 3,074,000 lbs. in 1888-89, and 2,693,000 lbs. in 1891-92, rose to 2,814,000 lbs. in 1892-93.

AGRICULTURE.
JUTE.

Bengal continues to be, as heretofore, the only province that produces jute to any considerable extent. The seasons of 1892 and of 1893 have not been favourable to the jute crop. The normal jute area of Bengal is returned at 2,226,000 acres; and the areas under jute in 1892 and 1893 respectively are given at 2,135,000 and 2,144,000 acres. The crop of 1892 was nearly up to the average; the yield of 1893 is put at 15 per cent. short of an average crop. Prices of jute ruled higher. The fluctuations of the jute trade during recent years have been as follows:—

YEAR.	Exports of				TOTAL.
	Raw Jute.		Gunny Bags and Gunny Cloth.		
	Cwts.	Value, Rx.	Number of Bags, and Yards of Cloth.	Value, Rx.	Value, Rx.
1883-84 - - - -	7,018,000	4,592,000	70,695,000	1,334,000	5,926,000
1887-88 - - - -	9,643,000	6,040,000	88,050,000	1,746,000	7,786,000
1889-90 - - - -	10,256,000	8,639,000	134,660,000	2,791,000	11,430,000
1891-92 - - - -	8,532,000	6,848,000	143,540,000	2,513,000	10,084,000
1892-93 - - - -	10,537,000	7,944,000	164,034,000	3,238,000	11,182,000

NDIGO.

The normal area under indigo in India is about 1,100,000 acres, of which one-half belongs to Lower Bengal, about one quarter to the North West Provinces, and nearly one quarter to Madras. The high prices of the previous year led to a considerable extension of indigo in the North West Provinces, the area sown having risen from 200,000 acres in 1891 to 350,000 acres in 1892. In Bengal the season was unfavourable, and the crop poor; in Madras and Northern India the crop was good. Prices ruled high. The average value per cwt. exported rose from Rx. 25 in 1891-92 to Rx. 32 in 1892-93. The total exports of the past five years have been:—

	Cwts.		Rx.	
1888–89 - -	142,000	valued at	3,949,000	Exports by sea, besides about 4,500 cwts. annually exported across the land frontiers of India.
1889–90 - -	157,000	„	3,863,000	
1890–91 - -	118,000	„	3,073,000	
1891–92 - -	125,000	„	3,214,000	
1892–93 - -	127,000	„	4,141,000	

MINES AND MINERAL RESOURCES.

MINERAL RESOURCES.
Coal.

There was again an important increase in the production of coal in India. The output for the last three years from the principal coalfields has been—

	Coal produced in		
	1890.	1891.	1892.
	Tons.	Tons.	Tons.
Bengal.—Burdwan field - - - - -	1,626,000	1,747,000	1,920,000
Karharbari field - - - - -			
Sonthal Pergunnahs field - - -			
Maunbhoom field - - - -			
Central Provinces.—Warora field - - -	137,000	192,000	132,000
Mohpani field - - -			
Assam.—Makum field - - - - -	146,000	154,000	164,000
Punjab.—Dandot field - - - - -	41,000	61,000	66,000
Baluchistan.—Khost field - - - - -	16,000	10,000	13,000
Rewah State.—Umeria field - - - -	78,000	70,000	89,000
Nizam's Dominions.—Singareni field - - -	125,000	145,000	150,000
TOTAL - - -	2,169,000	2,329,000	2,538,000

The total yield of Indian coal seven years ago, in 1886, was 1,389,000 tons; during the same period the importations of coal by sea decreased from 849,000 tons in 1886 to 634,000 tons in the year 1892; of this 97 per cent. came from the United Kingdom, while 18,000 tons came from Australia, and 1,900 tons from Japan. During the year work began at the Lingadaw coal mine in Upper Burma, and coal therefrom is already used to some extent on the Burma State Railway and in Government river steamers. MINERAL RESOURCES.

Iron is smelted on a small scale as a village industry in many parts of India; and iron ore of surpassing richness is found in the Central Provinces, in Madras, and in other parts. The Barrakur iron works, which possess coal, iron, and lime close to the works and on the main line of railway about 150 miles from Calcutta, have been mentioned in previous statements. These works were begun in 1875; after two successive companies and then the agents of the Government had failed to make them pay, the "Bengal Iron and Steel Company" took them over in 1890-91. New furnaces have been built, new pits have been sunk to the coal seams, plant for casting pipes and for making railway sleepers has been erected. The company turned out during the year 10,047 tons of pig iron and 3,970 tons of castings; they sold during the year 12,917 tons of pig and 4,253 tons of casting. The cost of production has been reduced, and the price has gone up compared with last year. This is the first year in which the company found a market for all the output of the year; their stocks of manufactured iron have been reduced; and their products have given satisfaction to customers. The capital expenditure of the company up to September 1892 was Rx. 185,000, and during the year then ending they had realised a profit of Rx. 14,800 on their sales of pig, and Rx. 4,600 on their sales of castings; the total profit on the working of the year in India came to 10½ per cent. on the total capital, against 5 per cent. in the preceding year. Iron.

The production of petroleum from the principal oil fields has been returned thus:— Earth Oil.

	Produced in			
	1888.	1890.	1891.	1892.
	Gallons.	Gallons.	Gallons.	Gallons.
Burma.—Akyab field, Kyaukpyu field, and Upper Burma field.	2,794,000	4,641,000	5,793,000	8,698,000
Baluchistan.—Thal Chotiali field - - -	34,000	272,000	138,000	3,000
Punjab.—Rawalpindee field - - - -	2,000	4,000	2,000	2,000
Assam.—Debroghur field - - - -	—	14,000	23,000	22,000
TOTAL - - -	2,830,000	4,931,000	6,136,000	8,725,000

In Lower Burma the oil output of Arakan showed an increase of 45 per cent.; but the increased total was only 308,000 gallons. In Upper Burma a greatly increased yield was obtained from the Yenangyaung field by the Burma Oil Company, which has been at work in the Yenangyaung field for about 18 years, and which possesses a refinery in Rangoon, and has considerably increased its machinery and its staff of skilled American oil-workers. Up to the end of the year the field had not been effectively worked by the other concessionaires. There has been a large decrease in the production of Baluchistan oil, which was formerly used as fuel for engines on the State railway. The Assam oil sources are as yet but little worked; the field is, however, believed to be valuable, and the yield may increase largely when the railway reaches the tract.

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MINERAL RESOURCES.

Though the output of Indian and Burmese oil has more than trebled in the past five years, still the importations of earth-oil into India by sea continue to increase, thus:—

IMPORTATIONS of Mineral Oils into India.

	1883 84.	1889-90.	1891 92.	1892-93.
	Gallons.	Gallons.	Gallons.	Gallons.
From United States	12,714,697	35,882,120	27,294,000	26,265,000
„ Russia	—	15,961,875	28,334,000	38,087,000
„ elsewhere	1,169,141	1,546,163	2,734,000	2,481,000
TOTAL	13,883,838	53,390,158	58,109,000	67,086,000

The value of the imported petroleum was returned at Rx. 2,690,000 in 1892 93, and at Rx. 2,367,000 in the preceding year. The employment of tank steamers began in 1893, and is expected to make imported oil cheaper, so that there may be a further increase in the use of this illuminant; in 1888-89 forty millions of gallons were valued at Rx. 1,860,000, whereas in the past year 67 millions were valued at Rx, 2,690,000, showing a fall of 14 per cent. in price during the five years.

Gold.

The gold industry in Mysore continues to advance, but down to the end of 1893 only four companies had produced any considerable quantity of gold. The results of eight companies working in Mysore during the last three years have been:—

	1888.	1892.	1893.
	Ounces.	Ounces.	Ounces.
Quantity of gold extracted	35,034	163,188	185,795
	Rx.	Rx.	Rx.
Net value of gold extracted	193,059	980,000	1,184,000
Royalty due to the Mysore State, approximately.	9,652	49,000	55,000

So far as is known, the yield of gold during the year 1893 has been from the Mysore Company 65,409 oz., from the Urigaon Company 75,063 oz., and from the Nandidrug Company 31,223 oz.

Rubies.

No reports of successful results have been received from the Burma ruby mines by the end of the year. There was some delay in payment of their rental by the lessees.

X.

PUBLIC WORKS.

The Public Works Department was represented in the Governor General's Council during the greater part of the year by Sir Charles H. T. Crosthwaite, K.C.S.I., who was succeeded by Sir Charles B. Pritchard, K.C.I.E., in November 1892. Mr. F. L. O'Callaghan took up the post of Public Works Secretary, in succession to Colonel J. G. Forbes, on the 8th August of the same year. PUBLIC WORKS. General.

The engineer establishment of the Department, including Bombay and Madras, but excluding the now separate Military Works Department, was maintained at an average strength of 887.

The following statement shows the composition of the engineer establishment, as it stood at the commencement of the year 1892 :—

	Government of India List.	Government of Madras List.	Government of Bombay List.	TOTAL.
Royal Engineer officers - - -	67	15	8	90
Other military officers - - -	13	—	—	13
Civil Engineers :				
Appointed from Europe - -	364	57	52	473
Europeans appointed in India -	205	4	6	215
Natives appointed in India - -	65	7	24	96
TOTAL - - -	714	83	90	887

In accordance with the recommendations of the Public Service Commission, important changes were effected during the year in the constitution of the Engineer and Accounts Establishments of the Public Works Department. The Engineering branch of the Department has been divided into two services, Imperial and Provincial, the former of which will be recruited in England and the latter in India. The pay, and leave and pension rules, of the two services will be different, but in other respects there will be no distinction between the members of the two divisions, and the highest posts in the Department will be open to both. The recruiting of the Imperial Service will be, as formerly, from the Royal Indian Engineering College at Cooper's Hill; the Provincial Service will draw its recruits from Students of the Indian Colleges who are natives of India, and from upper subordinates of the Public Works Department.

The recruitment of the Accounts branch of the Department will, in future, be wholly in India. In respect of entrance examination and scale of salaries this branch of the Public Works Department has been assimilated to the enrolled list of the Finance Department.

The operations of the Department deal with three kinds of works, viz., Railways, Irrigation, and Buildings and Roads. The Railway Department is an Imperial service under the direct control of the Government of India; the establishment employed on Irrigation and on Buildings and Roads, is subdivided into different Provincial services, controlled by the local administrations subordinate to the Supreme Government. Under the head of Buildings and Roads are included many miscellaneous works, such as improvements in towns, paving, water-supply and drainage, harbours, lighthouses, &c.

The annual expenditure on public works is met partly from money raised by loan, and partly from the ordinary revenues of the year. For the railways and the more important irrigation systems, distinct capital and revenue accounts are kept, but for the smaller works of irrigation, and

PUBLIC WORKS.

most of the works included in the class of buildings and roads, such accounts are not kept, though a distinction is made in the accounts between expenditure on new works and expenditure on repairs to existing works.

The following statement of the total receipts and expenditure under the head of Public Works for 1892–93 is compiled from the Finance and Revenue Accounts of the year :—

RECEIPTS.

	Rx.
Railways	19,077,103
Irrigation	2,418,902
Buildings and Roads	653,188
	22,149,193

EXPENDITURE (exclusive of Rx. 458,060 charged under Special Defence Works).

	Charged to Revenue.	Not Charged to Revenue.
Railways:	Rx.	Rx.
Construction	1,323,956	3,455,199
On Revenue Account	20,924,155	—
Irrigation:		
Construction	106,403	531,091
Ditto - from Famine Relief Grant	60,793	—
On Revenue Account	2,834,076	—
Buildings and Roads:		
Military Works	1,196,799	—
Civil Work	4,649,681	—
TOTAL	31,095,863	3,986,290

The expenditure charged against revenue includes the following items of "Interest on Debt:"—

	Rx.
Railways	4,779,107
Irrigation	1,138,386

On the 31st of March 1893 Rx. 110,608,826 of permanent public debt had been incurred on account of railways, and Rx. 28,923,097 on account of irrigation.

RAILWAYS.

RAILWAYS. Classification.

A full account of the results of railway operations in India is given in the Railway Administration Report annually presented to Parliament, and the aim of the following section is merely to give a short summary of them. As the accounts of the several railways had not been finally closed when the following statistics for the year 1893 were prepared, the figures must be accepted as only approximately correct.

The railways of India are classified primarily with reference to their ownership, and may be broadly divided into the Guaranteed, the State, and the Assisted. In the early days of railway enterprise the agency of private companies guaranteed by the State was exclusively employed, and nearly all the great trunk lines were made under this system. The chief terms of the contract between the old guaranteed companies and the State were as follows: the Government gave the land required free of charge; it also guaranteed interest, generally at the rate of 5 per cent., on the share capital raised with its consent, and a lower rate upon debenture capital. A general control and supervision over the proceedings of the company was also retained, and Government stores and troops were to be carried on favourable terms.

If

If the net profits in any half-year fall below the amount of guaranteed interest the Government makes up the deficiency. If they exceed this amount the surplus is equally divided between the Government and the company. Moreover, the Government has the right of buying the undertaking at specified dates, on payment of the value of the stock calculated at its market price on the average of the three preceding years. In this way the East Indian Railway was acquired in 1880, the Eastern Bengal Railway in 1884, the Scinde, Punjab, and Delhi Company's lines in 1885-86, the Oude and Rohilkhand Railway at the end of 1888, and the South Indian Railway in 1890. In 1870 a new policy of railway development by the direct agency of the State was inaugurated; and in 1880-81 the system of encouraging private enterprise by State assistance was again resorted to. Both agencies are now employed side by side. The experience gained of the working of the old guarantee system has, however, suggested various modifications in the relations between the State and the companies which have more recently been formed for the construction and working of railways, and the nature of the assistance granted now varies considerably. In some instances, of which the Bengal and North-Western Railway is the most important, lines have been constructed without any direct pecuniary assistance; in others a subsidy or limited guarantee has been granted. The agency of private companies has also been employed by the Government both in the construction and working of State lines. In all cases the Government has the power of taking over the railway at specified periods on stated terms.

Financial results to the State.

The following figures, taken from the Finance and Revenue Accounts of 1892-93, show the financial result of the working of the railways in India for the year ending 31st March 1893.

	Imperial.	Provincial.	England, including exchange.	Total.
REVENUE.				
Railways:—	*Rx.*	*Rx.*	*Rx.*	*Rx.*
State railways (gross traffic receipts)	14,810,148	1,004,291	368	15,814,807
Guaranteed companies (net traffic receipts)	3,244,413	- -	- -	3,244,413
Subsidized companies (repayment of advances of interest)	17,883	- -	- -	17,883
TOTAL	18,072,444	1,004,291	368	19,077,103
EXPENDITURE.				
Railways Revenue Account:—				
State Railways:—				
Working expenses	7,579,288	365,580	- -	7,944,868
Interest on debt	2,939,735	210,372	1,629,000	4,779,107
Annuities in purchase of railways	- -	- -	2,717,399	2,717,399
Interest on capital deposited by companies	30,108	- -	1,056,033	1,086,141
Interest chargeable against companies on advances	- -	- -	328,492	328,492
Guaranteed Companies:—				
Surplus profits, land and supervision	611,347	- -	- -	611,347
Interest	2,673	- -	3,435,962	3,438,635
Subsidized Companies:—				
Land, &c.	12,383	16,643	-	29,026
Miscellaneous railway expenditure	—10,860	- -	- -	—10,860
TOTAL	11,164,674	592,595	9,166,886	20,924,155

In the figures for expenditure are included all charges falling on the Government for management and working expenses of railways, for interest on

RAILWAYS.

on their capital outlay, as well as for the gradual redemption (by charge to the revenue account), of the commuted capital of the East Indian, Eastern Bengal, and Sind, Punjab and Delhi railways, through the agency of sinking funds and annuities, and of that portion of the Oudh and Rohilkhand railway debt incurred in excess of the money raised through the agency of the "Discount" sinking fund; the figures also include charges for land and control required by the companies, and for miscellaneous items, such as head-quarters establishment and surveys. After meeting all these expenses, the total charge to the State in 1892–93 was Rx. 1,847,052.

General results of the working of railways.

The general results of the working of the various classes of railways during 1893 are given in the following table. The aggregate net earnings by all Indian railways* amounted to 5·44 per cent. on the total capital outlay on open lines, including steam-boat service and suspense items, but excluding other indirect charges. The net earnings of the previous year were 5·47† per cent.

Railway Statistics, 1893.

CLASS.	Length of Line open on the 31st December 1893.	Total Capital outlay on open Lines to the 31st December 1893, including Steam-boat and Suspense.	Total number of Passengers carried.	Total weight of Goods carried.	Gross Earnings, including Steam-boat service.	Working expenses, including Steam-boat service.	Net Earnings, including Steam-boat service.	Percentage of Net Earnings on Capital outlay on open Line.
STANDARD GAUGE.	*Miles.*	*Rx.*	*No.*	*Tons.*	*Rx.*	*Rx.*	*Rx.*	
State lines worked by companies	3,494·58	59,054,941	19,966,829	7,109,876	6,114,770	1,965,633	4,149,137	—
State lines worked by the State	3,781·30	62,614,455	25,794,694	7,394,968	4,610,927	2,668,556	1,942,371	—
Lines worked by guaranteed companies	2,586·90	49,503,694	37,648,279	5,426,093	6,390,161	3,098,152	3,292,008	—
Assisted companies	183·75	1,665,488	2,074,288	155,874	147,731	66,502	81,228	—
Lines owned by native states and worked by companies	400·58	4,659,235	1,802,689	455,790	343,266	178,310	164,956	—
Lines owned by native states and worked by State railway agency.	123·86	769,200	801,885	130,179	65,400	35,200	30,200	—
TOTAL	10,570·97	178,267,013	88,088,664	20,672,780	17,672,255	8,012,353	9,659,900	5·42
TOTAL for 1892†	10,196·59	172,226,413	83,577,278	19,018,611	17,329,827	7,901,419	9,428,407	5·47
METRE GAUGE.								
State lines worked by companies	5,237·50	38,728,257	32,619,920	5,258,085	4,420,980	2,176,370	2,244,610	—
State lines worked by the State	1,294·75	10,979,695	9,946,600	1,391,100	1,162,400	669,950	492,450	—
Assisted companies‡	136·21	953,785	589,807	276,056	98,074	61,349	36,725	—
Lines owned by native states and worked by companies.	121·70	542,981	828,786	147,080	43,097	19,947	23,150	—
Lines owned and worked by native states	739·48	2,625,196	2,395,116	342,610	304,279	158,357	145,922	—
TOTAL	7,529·64	53,829,914	46,380,229	7,414,931	6,028,830	3,085,973	2,942,857	5·47
TOTAL for 1892†	7,268·26	52,434,217	42,857,331	7,117,544	5,730,261	2,886,102	2,844,158	5·42
SPECIAL GAUGES.								
State lines worked by the State	28·00	79,878	52,000	9,900	7,017	5,519	1,498	—
Assisted companies	51·00	317,000	51,537	28,063	63,135	35,451	27,683	—
Lines owned by native states and worked by companies.	71·66	185,540	447,900	51,400	24,540	12,100	12,440	—
Lines owned by native states and worked by State railway agency.§	—	—	—	—	—	—	—	—
Lines owned and worked by native states	94·00	216,150	269,000	23,620	32,000	17,350	14,650	—
TOTAL	244·66	798,568	820,437	112,983	126,692	70,420	56,271	7·05
TOTAL of 1892†	244·86	781,579	796,305	123,885	127,455	73,391	54,064	6·92
TOTAL of all railways	18,345·27‖	232,895,495	135,289,330	28,200,694	23,827,777	11,168,746	12,659,028	5·44
TOTAL of all railways for 1892†	17,709·71‖	225,442,209	127,230,914	26,260,040	23,187,543	10,860,913	12,326,630	5·47

* Excepting the Bengal Doars, Cooch Behar, West of India, Portuguese, and Pondicherry railways.
† As corrected from later information.
‡ Excludes the Bengal Doars railway, the figures for which have not been reported.
§ Information for the Cooch Behar railway, which belongs to this class, has not been furnished.
‖ Excludes the mileage of railways constructed but not worked.

It

It will be observed that, with an increase of 635½* miles or 3·59 per cent. in the open mileage as compared with 1892, the gross earnings and working expenses show increases of Rx. 640,237, or 2·76 per cent., and of Rx. 307,836, or 2·83 per cent. respectively, resulting in an increase of Rx. 332,401, or 2·70 per cent. in the net earnings. RAILWAYS.

The total number of passengers carried and the tonnage of goods moved were more by 8,058,416 and 1,940,654 tons respectively than in 1892.

The total railway mileage, under each gauge, opened during the year, and the sections opened were as follows :—

	Miles.	Miles.
STANDARD GAUGE.		
East Indian—Mile 1 from Barákar to Chanch	3	
Bengal-Nagpur—Jhársuguda to Sambalpur	30¼	
Godhra-Rutlam—Godhra to Limkhera	25	
Oudh and Rohilkhand (State)—Lucknow to Rae Bareli	48½	
East Coast (State)—Bezwada to Godávari, south, opposite Rajahmundry 91		
Rajahmundry, Godávari north, to Vizianagram 163		
Sámalkôt to Cocanada 9¾		
Waltair to Vizagapatam 1¾		
	265½	
		372¼
METRE GAUGE.		
Rohilkhand and Kumaon (Lucknow-Bareilly section) Mailáni to Sohela river	23½	
Guntakal-Mysore frontier—Dharmavaram to Mysore frontier	56½	
Southern Mahratta (Mysore section)—Dodballapur to Mysore frontier	31½	
Pálanpur-Deesa—Pálanpur to Deesa	17½	
Burma (State)—Meiktila-road to Meiktila cantonment	13	
Bengal Dooars—Teesta Ghát, opposite Jalpaiguri, to Mal bazar 27		
Latiguri to Ramshai Hat 7¾		
	34¾	
Jodhpore-Bickaneer (Jodhpore section)—Merta-road to Kuchaman-road	73	
Jetalsar Rájkot—Jetalsar to Rájkot	46½	
		296
SPECIAL GAUGE.		
Cooch Behar—Gitalda to Torsa river		24
TOTAL		692¼

The additional lengths sanctioned for construction were :—

STANDARD GAUGE.	
East Indian—Sultangunge to Sultangunge Ghát	1
METRE GAUGE.	
Rohilkhand and Kumaon (Lucknow-Bareilly section)—Dudwa to Sonaripur 4½	
Rájkot-Jamnagar—Rájkot to Jamnagar with branch to Port Jodia 70†	
Oodeypore-Chitor—Oodeypore to Chitor 60½	
	135
TOTAL	136

* Excludes the mileage of the Bengal Dooars and Cooch Behar railways. The difference between this figure *plus* the mileage of the Bengal Dooars and Cooch Behar railways, and the total length shown, in the statement following, as having been opened during 1893, is due to minor corrections in the mileage of existing railways.

† Construction provisionally sanctioned pending result of preliminary survey.

RAILWAYS.

The total mileage under construction or sanctioned for commencement at the close of the year, *i.e.*, on the 31st December 1893, was as follows :—

	Miles.	Miles.
STANDARD GAUGE.		
State lines worked by companies	157	
State lines worked by the State	584¼	
Lines owned by native states and worked by companies	10	
Lines owned and worked by native states	186¾	938
METRE GAUGE.		
State lines worked by companies	803	
State lines worked by the State	156¼	
Assisted companies	20¾	
Lines owned and worked by native states	130½	1,110½
TOTAL		2,048½

The extension of the Barákar branch of the East Indian railway to the Jherriah coal-fields, which includes a bridge over the Barákar river, is approaching completion and will probably be opened to traffic in March 1894; work is also well advanced on the Toposi Colliery branch.

A flotilla for service on the Bhagirathi river between Azímganj and Jeaganj in connection with the Azímganj branch, was under construction during the year.

Automatic vacuum brakes were brought into use on the mail trains of the East Indian railway, and an accelerated mail service was introduced. Pintsch's system of lighting carriages with gas was also adopted on the mail trains.

On the Bengal-Nágpur railway, arrangements were in progress for the construction of a bridge of boats across the Mahanuddee river at Sambalpur.

Work was started on the Silchar-Assam section of the Assam-Bengal railway and on the Mohuyin-Mogaung section of the Mu Valley (State) railway.

Work was actively prosecuted on the Mushkaf-Bolán railway, on the Chittagong-Silchar and Lumding-Gauhati sections of the Assam-Bengal railway, and on the Nílgiri railway.

At the close of 1893, work was approaching completion on the Limkhera-Dohad section of the Godhra-Rutlam railway, on the Bareilly-Rampur-Moradabad section of the Oudh and Rohilkhand (State) railway, and on the Mysore gold-fields and Máyavaram-Mútupet railways.

The work of strengthening the weak bridges on the North-Western (State) railway was also pushed forward. The work in connection with the strengthening of the Ravi bridge was completed, and the bridge was re-opened for traffic in July 1893. The erection of the new girders of the Jhelum bridge was proceeded with.

A colliery was opened in the neighbourhood of Sharigh on the Sind-Pishin section, and work in connection with the opening of another colliery at Bhaganwala was nearly completed during the year.

Heavy re-construction works, necessitated by flood damages on the Dinagepore branch of the Eastern Bengal (State) railway, were carried out during the year.

The doubling of the line between Tolly's Nullah and Dock junction on the southern section was completed, and the second line was opened on the 20th November 1893.

Owing to financial reasons, all works on the Langar division of the Mári-Attock railway had to be stopped in June 1893, but work is still in progress on the Kamalpur division.

From

From the 1st April 1893 the gradient improvement works on the North-Western (State) railway between Jhelum and Ráwalpindi were amalgamated with the Mári-Attock railway as a separate charge. About eight miles of line with improved grades were completed and brought into use during the year. Work was also well advanced on those portions which are still under construction. RAILWAYS.

On the Great Indian Peninsula railway, the new junction station at Poona was completed during the year at a cost of Rx. 63,800.

The wagon ferry of the Bengal and North-Western Railway was transferred from Dígha Ghât to Mokameh Ghât and commenced working on the 7th February 1893.

On the 1st January 1893, the Guntakal-Dharmavaram section, and on the 23rd April 1893, the Dharmavaram-Mysore frontier section of the South Indian Railway were transferred to the Southern Mahratta Railway Company for working.

The Mysore Railway from Bangalore was linked in with the Guntakal-Mysore Frontier Railway on the 15th April 1893, and trains have been working through since the 17th September 1893.

The first section of the East Coast (State) Railway from Bezwada to the south bank of the Godávari River opposite Rajahmundry, 91 miles, was completed and opened for traffic on the 20th February 1893, and made over to the Nizam's Guaranteed State Railways Company, for working as a temporary measure. From the 1st January 1894, however, the section has been worked by State agency along with the Rajahmundry-Vizianagram section of the main line, and the Cocanada and Vizagapatam branches, which were completed and opened for public traffic on the 21st August 1893.

The bridge over the Kistna river at Bezwada, which has been constructed to carry a mixed standard and metre gauge line, was completed and formally opened on the 17th March 1893. This bridge connects the Southern Mahratta metre gauge railway system with the Nizam's Guaranteed State Railway and the East Coast (State) Railways, which are on the standard gauge. Metre gauge traffic from the Southern Mahratta Railway has been worked over the bridge from the 1st January 1894.

The project for bridging the Godávari River near Rajahmundry has been deferred, but a ferry has been established across the river, which will be capable of carrying loaded wagons.

The maintenance of the Myohaung-Wuntho section of the Mu Valley (State) Railway, together with all capital works in progress, was taken over by the Burma (State) Railway on the 1st July 1893.

A conference of railway delegates was held at Simla in September and October 1893, at which all the principal railways were represented. There were a large number of subjects under discussion bearing more or less on technical questions affecting the traffic and working of lines.

Guaranteed Railways.

The transactions of the guaranteed lines are illustrated by the following table. In this table the rupee is converted into sterling at contract rates :—

RAILWAY COMPANY.	Capital expended to 31st December 1893.	Net Revenue for Year ended 31st December 1893.	Guaranteed Interest for Year ended 31st December 1893.	Interest in Excess of Revenue.	Net Revenue in Excess of Interest.	Surplus Profits earned by Company during Half-year.		REMARKS.
						Ended 30th June 1893.	Ended 31st December 1893.	
	£.	£.	£.	£.	£.	£.	£.	
Great Indian Peninsula	25,450,053	1,677,508	1,205,554	—	471,954	538,134	—	
Bombay Baroda, and Central India.	8,882,500*	854,333	417,766	—	436,567	366,448	70,119	* Includes the State outlay on the Pátri branch, 74,104*l.*
Madras - - - -	11,045,833	485,833	533,737	47,904	—	—	—	
TOTAL - -	45,378,386	3,017,674	2,157,057	—	860,617	904,582	70,119	
						974,701		
TOTAL FOR 1892† -	45,238,164	2,943,137	2,147,280	—	795,857	1,021,422		† As corrected from latter information.

IRRIGATION.

IRRIGATION.

Unlike the branch of public works dealt with in the preceding section, the history of irrigation in India stretches back into remote antiquity, and many of the irrigation systems now administered by the officers of the Public Works Department are founded on the lines of old native works which have been restored and extended or re-modelled.

The class of works dealt with by the Public Works Department under the head of irrigation may be roughly divided into canals and tanks, though these two kinds of works are frequently used in combination.

The storage of water in tanks for the purpose of irrigation is very common in Southern India. The works are for the most part of native origin; but much has been done under the British Government in repairing and improving old tanks, and in constructing new works, in Madras, the Bombay Deccan, and in Ajmere-Merwara.

Canal irrigation, in which the water is drawn directly from a river, has been practised on the largest scale and with the most successful results in the North-Western Provinces, the Punjab, and the deltas of the large rivers in the Madras Presidency. Irrigation canals are of two descriptions—viz., "perennial" and "inundation." The former are furnished with permanent headworks and weirs, and are capable of irrigating large tracts of country throughout the year, independently of the local rainfall. The magnitude of some of the works of this class, which are almost entirely due to British enterprise and skill, may be judged by a few instances. The Ganges Canal, which has been in operation since 1854, and has cost Rx. 2,881,816, comprises 438 miles of main canal, and 3,721 miles of distributaries, and in the year under review supplied water to 722,478 acres. The Sirhind Canal in the Punjab, which has not long been opened, has cost upwards of Rx. 3,755,000, and consists of 542 miles of main channels, and 4,659 miles of distributaries. In Madras the great deltaic irrigation systems of the Godaveri, Kistna, and Cauvery have respective lengths of main channel of 503, 329, and 844 miles, and together irrigate upwards of 2,000,000 acres. The inundation canals, which are peculiar to the Punjab and Sind, are of a much simpler and less costly description than the perennial canals. They are for the most part simply earthen channels, made without the expensive machinery of masonry dams and sluices, and are supplied with water by the annual rise in May of the Indus and its affluents. They constitute a very useful class of irrigation works, and in some cases have produced most successful financial results.

The works to which the preceding paragraph applies, in most cases take off from the larger rivers, which, even in times of drought can be depended upon for an unfailing supply of water. There is, however, a large class of works, chiefly tanks, in which the supply of water is more or less dependent on the local rainfall, either directly or through the medium of the smaller rivers which dry up in hot seasons. There remains the method of irrigation more extensively used in India than any other—viz., that by wells, which however, does not come directly within the scope of operations of the Public Works Department.

Financially considered, the irrigation works are classed as "Major" or "Minor." The former class includes all the works which have been undertaken from loan funds in the expectation that they would be sufficiently productive to cover the interest charges on the sums spent on their construction. It also includes the works classed as famine protective, which are constructed out of the annual grant for famine relief and insurance. The cost of constructing the "Minor" works, as well as the sums annually required for their working and maintenance, are met from the ordinary revenues, and for the greater part of this class of works distinct capital and revenue accounts are not kept.

The distinction implied in the words "Major" and "Minor" is not in complete correspondence with the facts, as there are some Minor Works which are of more importance than some Major Works. But, speaking generally, the "Major" class includes the works of the greatest engineering importance, which have been constructed, or, as in a few cases of old native works, almost entirely reconstructed by British officers.

The

The following statement gives a general view of the results obtained from working the canals for which full accounts are kept, for 1892–93 and the two previous years:—

	Capital Outlay (Direct and Indirect) to End of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
	Rx.	Rx.	Rx.	Rx.		Acres.
Major Works - - -	30,250,617	2,268,054	880,694	1,387,360	4·59	7,065,598
Minor Works - - -	4,736,104	619,686	291,122	328,564	6·94	2,575,467
TOTAL for 1892–93 -	34,986,721	2,887,740	1,171,816	1,715,924	4·9	9,641,065
TOTAL for 1891–92 -	34,272,979	2,622,967	1,187,836	1,435,131	4·1	9,444,363
TOTAL for 1890–91 -	33,289,469	2,578,554	1,092,535	1,486,019	4·4	9,488,784

There are great differences in the financial success of the irrigation works in the various provinces. These are due to the various physical conditions of the country in regard to surface, soil, climate, and the absence or presence of large rivers with a permanent supply of water, as well as to the differences in the character and habits of the people in different districts. There are also considerable differences in the manner in which the irrigation revenue is assessed and collected, which have an important bearing on the financial success of the works. In Madras the bulk of the irrigation revenue is collected with, and on most of the works is consolidated with, the land revenue. In Bengal and Bombay the receipts of the Irrigation Department consist to a great extent of "occupiers'" rates, and are not supplemented by "owners'" rates, as in the North West provinces, nor, with a few exceptions, by a share of the land revenue. In Sind the revenue of the canals consists almost entirely of the share of the land revenue allotted to irrigation. Cultivation is dependent on the artificial supply of water, and the consolidated revenue from the irrigated lands is divided in the proportion of 90 per cent. to irrigation and 10 per cent. to land. In the North Western Provinces and Oudh, and in the Punjab, the direct water rates are assessed partly on the occupier and partly on the owner of the land, the bulk of the rates falling on the former, and the irrigation receipts are further increased by a not unimportant contribution from the land revenue.

The following table gives the mileage of the canals in operation in each province, with the area irrigated during the year, and the estimated values of the crops raised by means of irrigation from the works:—

	Bengal.	North-West Provinces and Oudh.	Punjab.	Madras.	Bombay, including Sind.	Baluchistan.	Rajputana.	TOTAL.
Major Works:	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.		Miles.
Main Canals - - -	748	1,426	1,335	2,005	1,134	Nil.	Tank irrigation.	6,648
Distributaries - - -	2,432	8,658	5,599	6,430	321	Nil.	- ditto -	23,440
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Area irrigated - - -	662,930	1,663,393	1,720,872	2,396,520	621,883	—	—	7,065,598
Minor Works:	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.		Miles.
Main Canals - - -	834	20	2,699	1,475	1,925	4	Tank irrigation.	6,957
Distributaries - - -	—	564	656	1,172	340	38	- ditto -	2,770
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Area irrigated - - -	3,560	138,891	1,128,459	449,481	808,263	10,483	36,330	2,575,467
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Estimated value of crops raised by Major and Minor Works.	2,230,000	6,717,757	8,262,989	7,768,270	394,777*	—	—	—

* Exclusive of Sind.

IRRIGATION.

The following more detailed account of the irrigation operations of the year is given under the heads of the different provinces in which the works are situated.

Bengal.

Compared with the average of recent years, the report on irrigation operations in Bengal for 1892–93 shows improved results. Owing to the nature of the rainfall, the area irrigated, though above the average, fell short of the area recorded for 1891–92. On the other hand, the net revenue derived from the Major Works was the highest yet earned. On the Orissa Canals great improvement was shown in the collection of the revenue, and though the working expenses still exceed the receipts, the deficit was comparatively small. On the Sone Canal the area irrigated under long leases still shows a steady increase, and it is remarked, in connection with this fact, that the demand for water for rice cultivation is rapidly becoming independent of the rainfall.

The general results for 1892–93 of working all the irrigation and navigation systems for which full accounts are kept, are compared with the results of the five previous years in the following statement:—

YEAR.	Capital Outlay to End of Year.	Receipts.	Expenditure.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
	Rx.	Rx.	Rx.	Rx.		Acres.
1887–88 - -	7,061,459	174,151	190,973	—16,822	—	494,968
1888–89 - -	7,078,339	204,329	179,631	24,698	0·3	564,012
1889–90 - -	7,134,353	208,847	171,205	37,642	0·5	553,934
1890–91 - -	7,277,301	216,727	198,166	18,561	0·2	545,541
1891–92 - -	7,362,773	220,171	187,294	32,877	0·4	742,346
1892–93 - -	7,417,261	259,544	196,152	63,392	0·8	666,490

There are in Bengal four canal systems which are classed as Major Works. Three of these combine irrigation with navigation, and the fourth (Hidgellee Tidal Canal) is purely a navigation work.

The financial results obtained from the working of the Major and Minor Works from the year under review are shown in the following statement:—

CANAL.	Capital Outlay to End of Year.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
Major Works:	Rx.	Rx.		Acres.
Orissa Canals - - - -	2,553,271	— 813	—	160,952
Midnapore - - - -	844,284	8,445	1·0	91,217
Tidal Canal - - - -	232,788	2,030	·8	—
Sone Canals - - - -	2,670,147	30,133	1·13	410,761
Total Major Works - - -	6,300,490	39,795	·63	662,930
Minor Works:				
Calcutta and Eastern Canal -	535,784	22,793	4·2	—
Orissa Coast Canal - - -	434,443	— 1,471	—	—
Sarun Project - - - -	69,675	— 1,250	—	3,560
Total Minor Works - - -	1,039,902	20,072	1·9	3,560

The

IRRIGATION.

The Calcutta and Eastern Canals, which are the most profitable of the canal works in Bengal, are navigation works designed to maintain communication between Calcutta and Eastern Bengal, through the Sunderbunds. The Orissa Coast Canal, also a navigation work, forms with the Hidgellee Tidal Canal, a complete line of communication between Calcutta and Orissa; and in the event of famine in the latter district would be very useful as a means of importing food.

Besides the Minor Works mentioned in the foregoing statement, there are three works of this class for which capital accounts are not kept—viz., the Nuddea rivers system, and the Eden and Madhuban Canals. The first-named, which comprises about 477 miles of channel, is used for navigation purposes only.

In the following statement the traffic on the canals in Bengal in 1892–93 is shown in comparison with the traffic results of the previous year. The Nuddea rivers are included in this statement:—

YEAR.	Length of Canal open for Navigation.	Receipts.	Maintenance Charges.	Net Receipts.	Ton Mileage.	Estimated Value of Cargoes.	Number of Passengers.
	Miles.	Rx.	Rx.	Rx.	Tons.	Rx.	No.
1891–92 - -	1,150	114,258	68,853	45,405	52,460,556	14,350,985	506,408
1892–93 - -	1,150	103,412	57,275	46,137	49,575,060	13,631,279	612,668

* Excludes Nuddea Rivers.

The total capital expenditure of the year on all the irrigation and navigation works amounted to Rx. 54,488, against Rx. 85,471 in the preceding year. The decrease is principally owing to the small expenditure on the Sone Canals and the Hidgellee Tidal Canal during the year under review.

The capital estimate of the former canals was closed in 1891, and on the Hidgellee Tidal Canal the works in connection with the remodelling scheme have been practically completed.

The greater part of the year's capital expenditure was as usual on the Orissa Canals. The extension of the distributary system of these canals, with the drainage and protective works in connection with them, is still in progress. It is expected that the new distributaries will be practically finished by the close of the present year.

North West Provinces and Oudh.

In the North West Provinces and Oudh the area under irrigation during the year was below the average, a result which must be ascribed chiefly to the abundant winter rainfall. The low supply of water in the Jumna in the early part of the Kharif season also affected the canals fed by that river.

The general results of the year's working are compared with those of the five previous years in the following statement:—

YEAR.	Capital Outlay to End of Year.	Net Assessed Revenue.	Percentage of Net Revenue to Capital.	Area Irrigated.
	Rx.	Rx.		Acres.
1887–88 - - - -	7,876,732	302,001	3·84	1,517,288
1888–89 - - - -	7,998,365	310,435	3·88	1,604,753
1889–90 - - - -	8,087,397	370,563	4·58	1,879,403
1890–91 - - - -	8,135,747	413,703	5·08	2,014,114
1891–92 - - - -	8,189,278	446,626	5·45	2,045,030
1892–93 - - - -	8,230,083	380,495	4·62	1,799,846

IRRIGATION.

Excluding the Betwa Canal, which is a protective work, the Major Works earned a profit of 4·97 per cent. on their capital outlay. The individual returns from, and the areas irrigated by, the four works were as under:—

CANAL.	Percentage of Net Assessed Revenue on Capital.	Area Irrigated.
		Acres.
Upper Ganges - - - -	6·55	722,478
Lower Ganges - - - -	2·86	584,009
Agra - - - - - -	1·49	107,054
Eastern Jumna - - - -	21·62	227,430

The Betwa Canal, the only "protective" work, was worked at a loss of Rx. 4,135.

The net revenue from the Minor Works amounted to Rx. 10,238, which yielded a percentage of 3·5 on the capital outlay of Rx. 284,430.

The capital expenditure of the year, which amounted to Rx. 40,828, was incurred chiefly on the drainage of water-logged tracts, on the remodelling of distributaries, and on the permanent river training works at Narora. The expenditure was almost entirely confined to the major class of works.

Of the 1,402 miles of main and branch canals of the North West Provinces and Oude, 512 miles on the Ganges, Lower Ganges, and Agra Canals, are navigable.

The navigation operations on the irrigation canals are not profitable, though the deficit in the year under review is smaller than usual. The figures for the last three years are given in the following statement:—

YEAR.	Excess of Working Expenses over Receipts.
	Rx.
1890-91 - - - - - -	1,078
1891-92 - - - - - -	785
1892-93 - - - - - -	421

Of the principal crops raised on irrigated land, the chief place is as usual held by wheat, of which there were 655,116 acres—a considerable decrease from the previous year's crop, owing to the heavy winter rains, which enabled many crops to be raised without the aid of canal water.

Of the Kharif crops, the area under rice was exceptionally large, and that of indigo abnormally small.

The total value of the crops raised with canal water is estimated at Rx. 6,717,757.

In addition to the area irrigated by the Canals under the direct control of the Irrigation Department, there were 106,506 acres irrigated during the year by the Tarái and Bhábar Canals under the Commissioner of Kumaon.

Punjab.

On taking a general view of the irrigation operations in the Punjab for 1892–93, the results appear satisfactory, although the abundant rainfall of the winter months, which enabled large crops to be raised without the aid of irrigation, has unfavourably affected the assessed returns from particular works, and notably in the cases of the Western Jumna and Sirhind Canals.

The

The general results of the year's operations for all works are shown in the following table in comparison with the records of the four previous years :—

YEAR.	Capital Outlay to end of Year.	Area Irrigated.*	Assessed Revenue.*
	Rx.	Acres.	Rx.
1888–89 - - - -	6,080,938	2,614,130	650,424
1889–90 - - - -	6,196,927	2,797,172	689,260
1890–91 - - - -	6,435,818	2,842,658	751,491
1891–92 - - - -	6,904,558	3,067,336	800,652
1892–93 - - - -	7,182,298	2,849,331	728,373

* Includes Muzaffargarh Canals.

The above figures are exclusive of the Native States portion of the Sirhind Canal.

As might be expected from the nature of the winter season, the revenue assessed is below the average of the last four years. On the other hand the revenue actually collected during the year, which includes collections of rates assessed in the previous year, shows a considerable increase when compared with 1891–92 and 1890–91.

Taking the actual revenue collected, the following table compares the individual results obtained from all the works for which full accounts are kept.

CANALS.	Length of		Capital Outlay to end of Year.	Net Revenue collected in Year.	Percentage of Net Revenue on Capital Outlay.
	Main and Branch Channels.	Distributaries.			
Major Works :	Miles.	Miles.	Rx.	Rx.	
Perennial Canals :					
Swat River - - -	22	140	361,278	18,793	5·20
Western Jumna - -	278	928	1,134,415	65,081	5·74
Bari Doab - - - -	362	1,051	1,669,945	171,380	10·26
Sirhind (British portion) -	319	2,719	2,379,223	173,068	7·27
Chenab - - - - -	140	572	1,081,850	— 6,127	—
Inundation Canals :					
Lower Sohag and Para -	98	41	69,992	— 905	—
Sidhnai - - - -	68	112	96,711	14,460	14·95
Minor Works :					
Upper Sutlej - - -	219	127	64,124	10,373	16·18
Lower Sutlej and Chenab -	797	19	11,010	19,725	179·16
Indus - - - - - -	734	–	70,763	2,610	3·69
Shahpur - - - -	120	57	13,686	3,863	28·23
TOTAL - - -	3,157	5,766	6,953,001	47,23,24	6·79

IRRIGATION.

The area irrigated by the Native States Branches of the Sirhind Canal was only 134,273 acres as against 224,446 acres in 1891–92. In the Patiala State there was a profit of 2·84 per cent. on the capital expenditure, in Nabha State the profit amounted to only 0·87 per cent., and in Jhind there was a loss on the year's working.

The revenue from the Chenab Canal failed to cover the working expenses, but the prospects of this canal are nevertheless very encouraging. As this is the first year of working as a perennial canal no very useful comparison can be made with the working of previous years when it was an inundation canal. The irrigation showed an increase over any previous year of 100,000 acres, and 347,314 acres of Crown waste land were allotted to settlers, who, towards the end of the year, began to settle down in considerable numbers. The Secretary of State gave his sanction in 1892 to a large extension of this canal system, and the work has now been taken in hand.

The total capital expenditure on all works during the year was Rx. 277,739, in addition to Rx. 22,790 contributed by Native States. About 15½ lakhs was expended on the Chenab Canal, and nearly nine lakhs on the Sirsa Branch of the Western Jumna Canal, the construction of which was pushed on with vigour.

The returns of navigation receipts and charges on the Western Jumna and Sirhind Canals show a small profit, which is much below the average of previous years. This was due to a serious falling off in the raft traffic on the Western Jumna Canal. On the Sirhind Canal navigation was carried on at a loss.

Burma.

There is not much to record under the head of irrigation in Burma.

In Lower Burma the expenditure on irrigation and navigation amounted to Rx. 73,293, but the greater part of the outlay was incurred on river embánk ments and drainage cuts.

In Upper Burma the expenditure amounted to Rx. 114,416. Very little actual construction was done during the year. Some of the smaller irrigation works commenced during 1891–92 as famine relief works were completed, and work was done on the Nyaungyan-Minhla tank and the Meiktila lake.

For the main part, however, attention was devoted to survey work, and the maintenance of existing irrigation works. Surveys were commenced for a canal to be known as the Mandalay Canal, taking off from the Madaya river, and for two canals in the Shwebo and Ye-u districts taking off from the Mu river.

Ajmere-Merwara.

In Ajmere-Merwara the season was marked by very heavy rainfall, which was the cause of an abundant rabi crop. The irrigation works in these districts consist entirely of tanks, dependent on the rainfall for their supply of water, and the revenue is derived partly from water-rates directly paid, and partly from a share in the land revenue, including a well assessment, credit being given to the tanks for their effect in raising the level of the water in the neighbouring wells.

The general results of the year's working are compared with those of the preceding year in the following table :—

YEAR.	Capital Expenditure to end of Year.	Net Revenue.	Percentage of Net Revenue on Capital Outlay.	Area Irrigated or Protected.
	Rx.	Rx.		Acres.
1891–92 - - - - -	189,667	—21,835	—	11,987
1892-93 - - - - -	226,846	—6,860	—	36,330

The irrigation tanks in Ajmere-Merwara are all included in the class of Minor Works.

From

IRRIGATION. Madras.

From an irrigation point of view the Madras Presidency is distinguished by the variety and extent of its works, ranging from the great deltaic systems of the Godaveri, Kistna, and Cauvery, to the small tanks and channels maintained by the Revenue Department.

There are at present 10 "Major" Works, and 23 "Minor" Works, for which Capital and Revenue Accounts are kept, and numerous other irrigation and agricultural works, individually small, for which such accounts are not kept. Of the 23 minor works for which full accounts are kept, 19 are irrigation systems, and 4 are tidal canals intended for purely navigation purposes.

Excluding the Periyar project, still under construction, there are now in actual operation 3,444 miles of canals, of which 980 miles are for irrigation and navigation, 2,160 miles for irrigation only, and 304 miles for navigation only. From the irrigation canals 6,759 miles of distributary channels are taken off. The area irrigated during the year was 2,847,201 acres, the crops grown being valued at Rx. 7,768,270, or Rx. 581,898 more than in the previous year. It is noticeable that the estimated value of all the crops irrigated by the major and the principal minor works exceeded the total capital cost of these systems. Of the irrigated crops, rice constituted 95 per cent.

Taking all the works for which full accounts are kept, the general results of the year's working will be seen from the following statement:—

Year.	Capital Outlay.	Area Irrigated.	Net Revenue.	Percentage of Net Revenue on Capital.
	Rx.	Acres.	Rx.	
1890-91 - - - -	7,240,187	2,767,775	401,342	5·5
1891-92 - - - -	7,56[illegible],781	2,792,589	342,980	4·5
1892-93 - - - -	7,815,967	2,847,201	504,925	6·4

The net revenue recorded in the foregoing statement is that which has resulted from the outlay of Government capital. If the net revenue due to old irrigation be added, the total amount will be Rx. 863,690.

The results of the year's working for the Major Works in operation are shown by the following figures:—

Work.	Area Irrigated	Capital Outlay.	Net Revenue.	Percentage of Net Revenue on Capital.
	Acres.	Rx.	Rx.	
Godaveri Delta - - - -	697,388	1,280,427	175,795	13·73
Kistna Delta - - - -	471,401	1,079,510	135,278	12·53
Pennér Anicut - - - -	73,051	188,168	13,923	7·40
Sangam Anicut - - - -	74,987	369,235	11,594	3·14
Kurnool-Cuddapah Canal - -	30,766	2,166,584	—2,100	—
Barur Tank - - - -	3,584	41,859	240	·57
Cauvery Delta - - -	1,012,649	177,945	69,399	39·00
Srivaikuntham Anicut - -	29,111	145,154	3,757	2·59
Rushikulya (Protective Work) -	4,183	324,525	—995	—
Total - - -	2,396,520	5,773,407	406,891	7·05

IRRIGATION

The Minor Works irrigated an area of 450,681 acres, and earned a net revenue of Rx. 100,292, equivalent to a percentage of about 14·71 on the capital expended on them. The purely navigation works, of which the Buckingham Canal is the most important, were worked at a small loss. The total capital outlay on the last-named work amounts to Rx. 814,485. The financial results from this canal continue to show improvement.

Besides the works referred to in the foregoing paragraphs there is a large class of small works in Madras, partly maintained by the Public Works Department and partly by the Revenue Department, for which distinct capital and revenue accounts are not kept. The revenue derived from these works in 1892–93 was Rx. 782,892, and the area irrigated by them was 3,220,877 acres. A plan for the systematic repair of some of these works has now been in progress for some years, under the title of the "Tank Restoration Scheme." Up to the end of the year an expenditure of 43 lakhs had been incurred under this scheme, 26,874 square miles had been investigated, and estimates for 3,545 works had been prepared.

The only large works under construction in the Madras Presidency are the Periyar and Rushikulya Projects. The Periyar project is designed to conduct the waters of the Periyar river from the western to the eastern side of the Ghâts by a cutting and tunnel through the watershed. The capital expenditure on this work during the year was Rx. 134,837. It is estimated that the work will still take more than four years to complete. On the Rushikulya Project the capital expenditure was Rx. 50,806. This project is now well advanced, and a portion of the works has been opened for irrigation.

The total capital expenditure of the year on all works amounted to Rx. 253,186.

There is a considerable amount of navigation on the Godavari, Kistna, and Kurnool Irrigation Canals, in addition to that on the tidal canals, which are designed solely for traffic; and on the Godavari and Kistna the working was remunerative. Including the Buckingham Canal, the total value of goods carried during the year was Rx. 7,021,531, and the ton mileage was 45,505,422.

Bombay (excluding Sind).

The area under irrigation in Bombay in 1892–93 was very much smaller than in the preceding year, which, however, was an exceptionally good year. Owing to copious and seasonable rainfall the area irrigated sank from 96,025 acres in 1891–92 to 65,487 acres in the year under review, and there was a large decrease in the assessed revenue. The falling off in the area of irrigation was most perceptible in the class of protective works.

A comparative statement of the results from those works for which full accounts are kept for 1892–93, and the preceding four years, is given in the following table:—

YEAR.	Capital Expenditure to End of Year.	Area Irrigated.	Revenue Realised.	Working Expenses.	Net Revenue.
	Rx.	Acres.	Rx.	Rx.	Rx.
1888-89 - - -	2,360,723	79,195	37,154	23,431	13,723
1889-90 - - -	2,428,146	85,550	42,286	24,712	17,574
1890-91 - - -	2,491,583	74,852	46,081	23,961	22,120
1891-92 - - -	2,511,284	96,025	51,207	28,589	22,618
1892-93 - - -	2,531,673	65,487	54,554	30,777	23,777

The net revenue realized for the year represents a return of 0·94 on the capital expenditure. The Major Works produced a net revenue equivalent to 1·26 per cent. on the capital of Rx. 1,799,258 expended on them. The class of Major Works contains no single work that can be compared in magnitude with the

the enormous canal systems of other provinces in which it has been possible to utilize the great perennial rivers for the purposes of irrigation. In Bombay, owing to the uncertainty of the supply in the rivers, irrigation is largely dependent on the storage of water, and the majority of the works which have been undertaken in the province are tank projects.

The most important work, judged by the amount of capital expenditure, is the Mutha Canal system with the Lake Fife Reservoir, which in 1892–93 irrigated an area of 6,797 acres, besides supplying the cantonment and civil station of Poona with water. The total expenditure on this work is Rx. 635,082, and in the year under review the net assessed revenue was equivalent to a return of 1·88 on the capital outlay. The most remunerative work in the "major" class was the Krishna Canal which yielded a return of net revenue equal to 2·84 per cent. on the capital cost of Rx. 85,799. For irrigating capacity, the works known as the Nira Canal and Bhatghar Reservoir are the most important in the province. These works, which are classed as protective, are estimated to cost Rx. 610,443 when complete, and they will command an irrigable area of 227,670 acres.

The capital outlay during the year on all works amounted to Rx. 20,389, which was incurred principally on the Nira and Mutha Canals.

In the minor class of works for which distinct Capital and Revenue accounts are not kept, the expenditure for the year amounted to Rx. 19,797, and the revenue realized was Rx. 54,491, giving a net revenue of Rx. 34,694. The area irrigated during the year by this class of works was 146,187 acres.

Sind.

In Sind the regular rise of the River Indus, on which the success of the Irrigation operations depends, was so long delayed, that at one time fears of scarcity were entertained. Water was not available for full supply in the canals until nearly six weeks later than usual, but after this the river fortunately rose to a good height which was maintained until the first week in September, and of which full advantage was taken. Numerous breaches occurred in the bunds, but only in the Western Nara district did much damage occur, the Pritchard canal and the railway suffering severely, and great damage being caused to cultivators and also to the railway by rainfloods from the hills to the west, which appeared for the first time for many years.

Taking the works for which full accounts are kept, the general results for 1892–93 and the three preceding years are shown in the following statement:—

Year.	Capital Outlay to End of Year.	Net Revenue.	Percentage of Net Revenue on Capital Outlay.	Area Irrigated.
	Rx.	Rx.		Acres.
1889-90 - - - -	1,183,638	147,413	12·4	1,381,679
1890-91 - - - -	1,193,929	142,458	11·9	1,290,817
1891-92 - - - -	1,207,503	120,058	9·9	1,225,150
1892-93 - - - -	1,237,108	146,533	11·8	1,363,660

In Sind the existence of cultivation depends upon irrigation, and there is a constant demand for the canal water. This fact, and the comparatively inexpensive nature of inundation canals, will account for the favourable financial results obtained from the works.

There are four "major" works in Sind, viz, the Desert, Unharwah and Begari Canals, and the Eastern Nara Works. These works earned profits at the respective rates of 1·6, 8·8, 17·7, and 5·9, on the sums expended on their construction.

IRRIGATION.

The capital expended during the year on the major works, which amounted to Rx. 20,844, was almost entirely upon the Eastern Nara Works. On the minor works the capital expenditure was Rx. 8,760, and was incurred chiefly on the Fuleli Canal.

The principal works in hand on the Eastern Nara, were the Játri Keti clearance, and the construction of an escape sluice from the Nára into the Játri Dhands. The construction of the Dhámrao Canal, and a new feeder to the Western Nara were in progress, and improvements to the Unharwah were commenced. A new regulator for the Fuleli Canals was furnished, and another was in progress. In the Karachi district, work was started on the Bárághgaza Khadi bund.

Baluchistan.

There are no "major" works in Baluchistan. The class of "minor" works is represented by two schemes now in operation, viz., the Shebo Canal and the Khushdil Khan Reservoir, the former of which has cost Rx. 65,632, and the latter Rx. 89,678.

In the year under review the Shebo Canal earned a net revenue of Rx. 918, equivalent to a percentage of 1·40 on the capital outlay; the net revenue from the Khushdil Khan Reservoir was Rx. 1,299, equal to a return of 1·45 per cent. on the capital expended.

The area irrigated by these two works was 10·483 acres.

BUILDINGS AND ROADS.

BUILDINGS AND ROADS.

The buildings and roads branch of the Public Works Department embraces all the operations of the Department which are not classed under the special heads of Railways and Irrigation. It includes the extension and maintenance of the road system, the construction and repair of all the buildings required for the proper discharge of the functions of government in all its branches, and a large miscellaneous class of works of public improvement, including light-houses, harbours, embankments, boat bridges, and ferries, and the water supply and sanitation of towns.

The operations of this branch of the Department are classed primarily under two divisions, viz., military and civil works. The military works are executed entirely from Imperial funds.

The expenditure on civil works is chiefly met from provincial and local resources. The classification of the expenditure for 1892-93 under the heads referred to is shown in the following table:—

	Imperial.	Provincial.	Local.	Total in India.	Expenditure in England.	Exchange.	GRAND TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Military Works - - -	1,131,728	- -	- -	1,131,728	40,628	24,443	1,196,799
Civil Works - - - -	635,087	2,162,357	1,714,593	4,512,037	85,940	51,704	4,649,681
TOTAL, 1892-93 - -	1,766,815	2,162,357	1,714,593	5,643,765	126,568	76,147	5,846,480
TOTAL, 1891-92 - -	1,938,845	2,461,115	1,651,761	6,051,721	109,485	47,546	6,208,752
TOTAL, 1890-91 - -	1,786,868	2,188,276	1,600,095	5,575,239	117,330	38,338	5,730,907

This statement does not include the outlay from Imperial revenues recorded under the head of Special Defence Works, which amounted to Rx. 491,837 in 1890-91, Rx. 604,848 in 1891-92, and Rx. 458,060 in 1892-93.

The greater part of the expenditure from local funds is absorbed by the maintenance and extension of roads. A portion of this expenditure is under the direct control of the Public Works Department, but the larger part of the local funds outlay under the head of Buildings and Roads, as well as a small portion of the provincial outlay, is under the management of the Civil Department, and is not controlled by the Public Works officers.

The

The extension of local government in India has thrown a large portion of the smaller class of public works into the hands of the local boards. Speaking generally, the boards maintain their own establishments, but in the case of any works of unusual difficulty have recourse to the professional skill of the Public Works officers. BUILDINGS AND ROADS.

MILITARY WORKS.

The total expenditure on Military Works, ordinary and special, amounted to Rx. 1,654,086 in 1892-93, against Rx. 1,829,418 in 1891-92. The decrease of Rx. 175,332 was almost entirely under the head of Special Defence Works, the cost of which amounted to Rx. 457,287, against Rx. 614,900 in the previous year. MILITARY WORKS.

The expenditure of Rx. 1,196,799 on ordinary military works included an outlay of Rx. 506,733 on new works, of Rx. 315,087 on repairs, and of Rx. 255,748 on establishment. Under the head of New Works, additions to the barrack and hospital accommodation for British and native troops cost about Rx. 240,000, while General Cantonment Works figured at Rx. 114,261, the greater part of this sum being applied to the improvement of the water supply of the large military stations, a work of the highest importance to the health of the troops.

The expenditure of Rx. 457,287 on Special Defence Works was made up as follows:—

	Rx.
Coast Defences	148,985
Frontier „	105,248
Armaments	156,583
Establishment	45,174
Tools and Plant	3,101
Suspense	1,804
Total	457,287

Of the expenditure under Armaments, no less than Rx. 149,167 was appropriated to Coast Defences, while only Rx. 7,416 was devoted to frontier works.

Inclusive of "Armaments," frontier defences cost Rx. 112,664, and coast defences Rx. 298,152. The largest outlay on the latter was at Bombay and Rangoon, smaller sums being expended on the works in progress on the Hooghly, at Aden, and Karachi.

The expenditure on land frontier defences was distributed over various points in the Punjab and Baluchistan, far the greater part of the work, however, being done at Rawalpindi and Attock.

Of the total expenditure on Special Defence Works, Rx. 255,723 was spent in India, and the balance of Rx. 201,564 was applied to the purchase of heavy guns, ammunition, and stores in England. The latter amount includes a sum of Rx. 3,984 contributed by the Imperial Government towards the defences of Aden.

The total amount expended on Special Defence Works up to the close of 1892–93 (exclusive of contributions from Imperial revenues) was Rx. 3,815.464.

CIVIL WORKS.

The following statement shows the distribution of the total outlay in India on Civil Works among the different provinces. CIVIL WORKS.

EXPENDITURE in India on CIVIL WORKS in 1892–93.

	India, General and Political.	Bengal.	North West Provinces and Oudh.	Punjab.	Burma.		Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
					Upper.	Lower.					
Expenditure by Public Works Department:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Civil Buildings	69,616	139,929	131,580	144,377	105,128	119,361	64,200	24,154	122,344	163,393	1,084,082
Communications	65,820	84,109	235,546	173,242	93,700	105,077	84,813	182,972	49,331	203,972	1,278,582
Miscellaneous Public Improvements.	4,272	5,286	42,126	35,200	6,590	11,255	1,616	8,325	1,992	13,191	129,853
TOTAL Works and Repairs	139,708	229,324	409,252	352,819	205,418	235,693	150,629	215,451	173,667	380,556	2,492,517
Establishment	42,223	76,508	116,822	88,104	57,417	52,701	33,922	51,167	54,637	111,440	684,941
Tools and Plant	3,871	2,960	5,377	5,113	4,444	5,651	5,018	2,796	15,850	6,892	57,972
* Profit and Loss, Suspense, &c.	— 7,015	— 9,009	— 9,460	— 6,167	— 1,353	21,374	87	— 515	— 5,879	2,780	— 15,157
TOTAL Expenditure by Public Works Department	178,787	299,783	521,991	439,869	265,926	315,419	189,656	268,899	238,275	501,668	3,220,273
Expenditure by Civil Department	15,326	472,966	86,366	15,359	14,453	34,203	19,323	2,130	482,479	149,159	1,291,764
TOTAL Expenditure in India	194,113	772,749	608,357	455,228	280,379	349,622	208,979	271,029	720,754	650,827	4,512,037

* Under this head has been deducted a sum of Rx. 3,857 for outlay in England from Imperial funds and exchange thereon, and Rx. 778 for charges incurred on account of the Indo-European Telegraph Department by the Bombay Public Works Department.

BUILDINGS AND ROADS: CIVIL WORKS.

The greater part of the outlay by the Civil Department, shown in the foregoing statement, was expended upon communications. The following abstract shows the total sums expended in India, by both the Public Works Department and the Civil Department, under the three heads of Buildings, Roads, and Miscellaneous Public Improvements. As in the previous statement, Military Works are not included.

	By Public Works Department.	By Civil Department.	TOTAL.
	Rx.	Rx.	Rx.
Civil Buildings	1,084,082	103,008	1,187,090
Communications	1,278,582	813,596	2,092,178
Miscellaneous Works	129,853	144,197	274,050
TOTAL Works and Repairs	2,492,517	1,060,801	3,553,318
Establishment	684,941	177,354	862,295
Tools and Plant	57,972	9,140	67,112
Profit and Loss, Suspense, &c.	— 15,157	44,469	29,312
TOTAL	3,220,273	1,291,764	4,512,037

The expenditure in England consists to a great extent of furlough and absentee pay and allowances of military and civil officers of the Public Works Department. It also includes the expenses of the Royal Indian Engineering College at Cooper's Hill, which amounted in 1892-93 to 28,184*l.* (inclusive of 560*l.*, the cost of alterations to the College buildings). The revenue of this institution for the year was 27,704*l.*

The total expenditure in Bengal amounted to Rx. 777,555, distributed as follows:— Bengal.

	Rx.
Imperial Military	4,806
Imperial Civil Works	27,390
Provincial Civil Works	290,513
Local Civil Works	454,846
	Rx. 777,555

There were no Imperial works of importance carried out during the year.

In the class of provincial buildings the principal work was the new Public Offices in Dalhousie square, Calcutta, which were completed in November 1892. The building will accommodate the offices of the Commissioner of the Presidency Division, the Collector of Income Tax, and the Collector of Calcutta. A new School of Art was commenced in January 1892 and completed in January 1893, and the extension of the east wing of the Presidency College, with the view of establishing a chemical laboratory, was taken in hand. Improvements were carried out in the Medical College Hospital, and measures were taken for remedying the settlement that has taken place in the High Court building.

The total outlay on buildings amounted to Rx. 154,025, the largest individual item being the expenditure under the head of Land Revenue in the provision of courthouses, treasuries, &c. Progress was made during the year in the work of providing improved accommodation for Munsifs' Courts, and residences were erected for Government officials at various places where there was want of house accommodation.

The old Kanarak Temple was visited during the year, and will in future be maintained like other historical buildings, at the public expense.

Under the head of Communications, the most noticeable work was the Tulin Bridge over the Subarnarekha-river on the Ranchi-Purulia-road, which was finished and opened for traffic on the 4th September 1892; a completely bridged

BUILDINGS AND ROADS: CIVIL WORKS.

bridged and metalled road now connects Ranchi with the Purulia railway station. The Pancharai Bridge on the Darjeeling Hill Cart-road was opened for traffic, and the Ranchi-Chaibassa-road which forms an important railway feeder road to the Bengal Nagpur Railway was partly completed. Particular attention was given to the development of means of communication in the Duars, with the two-fold object of providing feeders to the Duars Railway and of opening up the eastern part of the district.

The following statement shows the length of road communication maintained by public authorities in Bengal during the year 1892-93.

	Metalled Roads.	Unmetalled Roads.	TOTAL.
	Miles.	Miles.	Miles.
Maintained by Public Works Department -	1,095¼	479¼	1,574½
Maintained by Local Authorities - - -	3,169	30,695¼	33,864¼
TOTAL - - -	4,264¼	31,174½	35,439

The total expenditure on road extension and maintenance during the year was Rx. 84,109 by the Public Works Department, and Rx. 339,270 by local officers.

The construction of the Tarkeshwar-Magra Steam Tramway was commenced during the year. This scheme has been promoted entirely under native auspices, and its construction is under native management. Projects for tramways from Howrah to Ampta, and from Howrah to Sheakhalla, were under consideration.

Mishaps arising from floods appear to have been confined to the Darjeeling district during the rainy season of 1892; several bridges were carried away, and there was considerable interruption of traffic.

The Kidderpore Docks were opened in September 1892. This work was originally estimated to cost two crores of rupees, but modifications of the design, and extra expenditure caused by a serious accident to the dock walls, and other causes, have raised the total outlay to Rx. 2,809,806.

North West Provinces and Oudh.

The expenditure for the year in the Building and Roads Branch in the North West Provinces and Oudh, was as follows:—

	Rx.
Military Works - - - - - - - -	1,492
Civil Works, Imperial - - - - - -	13,743
„ Provincial - - - - - -	352,303
„ Local - - - - - - -	242,311
TOTAL - - -	Rx. 609,849

There were no buildings of importance under construction from Imperial Funds.

The most important works executed during the year from provincial and local funds were as follows: the additions to the Thomason Hospital at Agra were completed, the grounds laid out, and a water supply in connection with the city waterworks arranged for. The new buildings have cost Rx. 16,286, and were formally opened in October 1892. An expenditure of Rx. 8,002 was incurred upon the Bar Library and Barristers' and Pleaders' Chambers at Allahabad. This building is attached to the High Court, and supplies a long-felt want. The Ishwari Hospital at Benares was completed and opened during the year.

Two bridges over the Hindan river at Ghaziabad and Tikavi were completed in June 1892 at a total cost of Rx. 11,211, and Rx. 8,585, respectively.

The wire fence along the western border of the Agra district was extended southwards as far as the Ban or Utangan river, a distance of 23¼ miles. The whole length now protected against the incursions of wild cattle from Bhartpur territory is 41¼ miles. It has proved effective, and has conferred a great boon on the cultivators.

The

BUILDINGS AND ROADS: CIVIL WORKS.

The total expenditure on communications, excluding establishment, amounted Rx. 112,385 from provincial and Rx. 160,275 from local funds. Progress was made with the important road from Hawalbagh to Baijnath, and the lower part is approaching completion.

An extension of the Fyzabad-Gorakhpur-road from Betwa to Kutra and Lakarmundi railway station was in hand, and improvements and repairs were carried out on the new cart road from the brewery to Naini Tal.

The establishment of the Thomason Engineering College cost Rx. 14,734, and the net profits from the Government workshops at Roorkee amounted to Rx. 9,633 against Rx. 8,320 in the previous year. The minor public works such as the less important roads, the local educational and medical buildings, dák bungalows, inspection and rest houses, and miscellaneous public improvements of a local nature, are carried out and maintained by the district boards, who, for these purposes, have a small trained establishment under their control. Among the public works of the Province, a prominent place must be given to the large schemes of water supply and sanitation which are being carried out by the municipalities of the larger towns. Works of this kind were in progress in Lucknow, Naini Tal, Mussoorie, Cawnpore, and Benares.

The Ganges navigation works which consist in keeping open a channel in the Ganges between the points where the Jumna and Gogra flow into it, were carried on as usual. The funds connected with the Ganges river works and tolls, showed an unexpended balance on 31st March 1892 of Rx. 4,062, and the ferry funds showed a surplus of Rx. 41,743.

The number of works of public utility constructed and repaired by private individuals at their own expense during the year was 244, at a cost of Rx. 11,243. They consisted chiefly of masonry wells, with a few tanks, bridges, and other works.

PUNJAB.

The total expenditure incurred in the Public Works Department of the Punjab amounted to Rx. 476,343. Of this amount, Rx. 21,115 was spent on Imperial military, Rx. 32,059 on Imperial civil works, Rx. 310,498 on provincial works, and Rx. 112,671 on local works. About 12¼ lakhs were expended by Municipal Committees, while works costing over 1½ lakhs, paid for from private and other funds, were carried out by the Provincial Public Works Department.

The most important Imperial works in hand were a combined water supply and sewage scheme at Kohát (the sewage part of which has been completed), and the metalling, repairing, and providing water supply for the North West Frontier-road and the Dera Gházi Khan-Loralai-road. Among civil works it may be mentioned that the new additional Court-house at Delhi, the new Jail at Abbottabad, and a new Anatomical Laboratory for the Mayo Hospital at Lahore, were completed during the year, and good progress was made with the Montgomery Central Jail. The most important contribution works were the Dufferin Hospital at Delhi, which was completed, and the Jubilee Museum at Lahore, which was practically finished, with the exception of some ornamentation work.

The Delhi Waterworks were formally opened in October 1892, and progress was made with the Simla water supply and sewage extension works, and with the Ludhiána City Drainage and the Murree and Dalhousie water supply scheme.

The following statement gives the number of miles of road in the province at the close of the year, excluding station roads:—

	Metalled.	Unmetalled.	Total.
	Miles.	Miles.	Miles
Imperial	232½	510	742½
Provincial	1,530½	2,813¼	4,343¾
District	745½	20,430½	21,176
Total	2,508¾	23,753¾	26,262½

BUILDINGS AND ROADS: CIVIL WORKS.

Of the total road mileage, 3,169¼ miles were maintained under the direct management of the Public Works officers: the remainder were almost entirely maintained by the District Fund Establishment.

Boat bridges are maintained at various points on the large rivers by which the province is traversed. The capital outlay on boat bridges and major ferries, amounted at the close of the year to Rx. 54,786. The gross income derived from them during the year was Rx. 13,689, and the cost of maintenance was Rx. 12,042, leaving a net income of Rx. 1,647.

The total cost of the Imperial and Provincial Public Works establishment employed in the Punjab in 1892–93 amounted to Rx. 82,225. The percentage of cost of establishment to expenditure on works and repairs was 22·9. Besides the works carried out by the Public Works Department, of which the cost is met from Imperial and provincial funds, much professional assistance is rendered by the Department to the district boards and municipalities in checking and examining estimates and plans, in preparing projects, in inspection, and in some cases in carrying out works.

Burma.

The expenditure in the two divisions of Burma for the year 1892–93 is shown in the following statement:—

	Upper Burma.	Lower Burma.
	Rx.	Rx.
Imperial Military	135,308	14,397
Imperial Civil	260,876	2,864
Provincial	—	296,458
Local	19,503	50,300
TOTAL Rx.	415,687	364,019

In Lower Burma the principal buildings under construction were the New Public Offices, Rangoon, which were nearly completed; the Jail at Insein for 2,000 prisoners, which was partly occupied, and the New Government House, Rangoon. The expenditure during the year on the last-named work was Rx. 14,984. The building is estimated to cost Rx. 58,582.

The total mileage of open roads in Lower Burma is now 2,697¾. Twelve miles of metalled, and 18 miles of unmetalled raised and bridged roads were opened during the year.

In Upper Burma the outlay on Imperial military works forms a much larger proportion of the total expenditure than in the lower province. This outlay was incurred chiefly in the construction of barracks.

The chief civil buildings in progress were residencies for the superintendents of the Northern and Southern Shan States; houses for commissioners, &c.; police lines and jails at Minbu and Kindat.

No important roads were commenced during the year. The chief works in progress under this head, were the improvement of the Ruby Mines-road; the extension of the Mandalay-Lashio-road; bridges over the Chaungzôn Nullah and Namsein River; extension and improvement of the Myingyan-Fort Stedman-road. Roads in the Chin Hills were considerably improved, and a mule-track opened out from Waingmaw on the east bank of the Irrawaddy to Sadôn in the Kachin Hills.

Central Provinces.

The expenditure in the Central Provinces was as follows:—

	Rx.
Imperial Military	387
„ Civil	2,110
Provincial	174,881
Local	31,988
TOTAL Rx.	209,366

The outlay under the heads of Imperial Military and Imperial Civil Buildings included no works of any importance. The expenditure from Provincial Funds was less than in the previous year. Under the head of Civil

Civil Buildings the greater portion of the available funds was absorbed by the requirements of the Departments of Law and Justice, and Jails. The new Law Courts at Nagpur were commenced in May 1892, and by the end of the year were well advanced towards completion. Considerable outlay was incurred on the Nagpur Central Jail, and progress was made in the construction of a hospital for the Jubbulpore Central Jail. BUILDINGS AND ROADS: CIVIL WORKS.

Compared with the previous year, the expenditure on new works of communication was much contracted. Only 3·1 lakhs were spent as against 5·7 lakhs in 1891-92.

The high level bridge over the Suktawa River was completed, and work was started on a bridge over the Machna at Shahpur. Preliminary steps were being taken in a scheme for improving the system of roads connecting the stations of Betul, Chhindwara, Seoni, Balaghât, and Mandla.

The Balramdass Water Works were practically completed and were opened in December 1892, and sanction was given to the scheme for the Rajnandgaon Waterworks, which are estimated to cost Rx. 12,936.

The output of coal at the Warora Colliery, which amounted to 107,272 tons, was smaller than in the previous year. At the Umaria Colliery the supply exceeded the demand. The total output amounted to 97,001 tons.

The outlay for the year in Assam amounted to Rx. 280,683, and showed a considerable increase over the expenditure of the previous year. The total outlay was divided between Imperial, Provincial, and Local, as follows: — Assam.

	Rx.
Imperial Military	9,654
Imperial Civil	77,474
Provincial	132,177
Local	61,378
TOTAL	Rx. 280,683

The most important work in progress under the head of Imperial Civil Works is the construction of the road between Nichuguard and Manipur. This road will be 132 miles long, and is estimated to cost Rx. 178,394. About 40 miles were opened for traffic during the year.

The most important items of the Provincial expenditure were also the construction and maintenance of roads. The chief works under the head of Buildings were the military police lines and jail at Kohima, a Munsif's Court at Sylhet, and a sub-divisional officer's residence at Habiganj. The outlay on roads included expenditure incurred in the construction of bridges on the Companyganj-Salutikar and Fenchuganj roads, and in improving and bridging the North Trunk-road from North Lakhimpur to Dikrang. The Silchar-Aijal, road was aligned, and the Kohima-Cheswejuma-road completed during the year.

Among miscellaneous works the construction of the canal along the left bank of the Desang River may be mentioned. The public works of local boards were of the usual character, and do not call for special notice.

The expenditure by the Buildings and Roads Branch in Madras for 1892-93 amounted to Rx. 730,323, of which Rx. 13,274 was Imperial, and included Rx. 9,569 on military works. Of the remainder Rx. 253,794 was Provincial, and Rx. 463,255 was Local Expenditure. Madras.

The famine relief operations, conducted by the Public Works Department, formed a special feature in the year's work. The districts in which the operations were carried on were Bellary, Anantapur, Kurnool, and Cuddapah.

The maximum number of persons employed in any one week, under all agencies in relief works throughout the Presidency was 91 065, but the number of persons exclusively employed in "professional agency" works, under the supervision of the Public Works Department, did not exceed 27,521.

The total expenditure incurred during the year on famine relief works under all heads, by the agency of the Public Works Department, was as follows:—

	Rx.
Irrigation Works	20,154
Roads	7,985
Miscellaneous	399
Establishment	6,727
	35,265

BUILDINGS AND ROADS: CIVIL WORKS.

Among the buildings in the Presidency-town completed or in progress during the year, the most important was the new Law Courts, which was formally opened on the 12 July 1892. Large workshops for the College of Engineering were commenced, and extensions to the Presidency College were carried out. The establishment of a Law College at Madras has been sanctioned, and the detailed plans and estimates were in course of preparation. At Calicut the Collector's office was nearly completed, and progress was made with the Government House at Ootacamund.

Among the more important works of communication mention may be made of the road from Potinghi to Koraput, which was completed, and the improvements to the Vayitri-Gudalur-road. At the Coonoor Ghât and Kullar Bridge much damage was done by floods. Progress was made with the Mahasinghi and Suruliyar Bridges.

The following statement shows the length of road communication maintained by public authorities in Madras during the year 1892-93:—

	Metalled Roads.	Unmetalled Roads.	TOTAL.
	Miles.	Miles.	Miles.
Maintained by Public Works Department -	222	240	462
Maintained by Local Authorities - - -	11,293	10,195	21,488
TOTAL - - -	11,515	10,435	21,950

The Madras Harbour Works are approaching completion, and the progress made during the year was confined to the construction of the massive pier-heads, which entailed heavy and difficult work. Progress was also made in depositing the wave-breaker blocks on the outside of the two piers and in protecting the shore north of the harbour. The outlay for the year amounted to Rx. 25,602.

The projected improvements to the Harbour of Vizagapatam were deferred for want of funds. The proposal to construct an iron screw pile pier at Negapatam was also in abeyance.

Bombay (including Sind).

The expenditure in the Bombay Presidency for 1892-93 amounted to Rx. 669,607, of which Rx. 18,780 was for Military works and Rx. 650,827 for Civil works. The Imperial portion of the expenditure on Civil works amounted to Rx. 25,449. The most important outlay under this head was incurred in the provision of accommodation for the Customs and Salt Departments. The grant for the Somali Coast works amounted to Rx. 8,150; Provincial outlay amounted to Rx. 351,738, and Local outlay to Rx. 273,645. Under the head of Civil Buildings, in addition to the ordinary works carried out for the accommodation of the various branches of government, were included some works of special importance, such as the New European General Hospital at Bombay known as St. George's Hospital, which was completed in December 1892 at a cost of Rx. 57,642. Some additions were made to the Sir Dinshaw Maneckji Petit and Bai Moltibái Hospitals, and Dvárkádás Lallubhoy Dispensary. The expenditure on these buildings, which are now completed, has amounted to Rx. 46,248.

Among the more important works completed within the year may be also mentioned the new Revenue Offices at Broach, the new Distillery buildings at Surat, the Anjuman-i-Islam School, Bombay, and the Hospital for Women and Children at Poona.

Progress was made with the large Central Jails under construction at Ahmedabad and Hyderabad in Sind, and also with the scheme for the provision of suitable quarters for the police.

The total outlay on communications during the year amounted to Rx. 265,005. The length of road extension under operation amounted to 6½ miles from Imperial funds, 169¼ miles from Provincial funds, and 437¼ miles from Local funds. The most important of the bridges under construction was the Ellis bridge over the Sábarmati river at Ahmedabad, which replaces the bridge destroyed

destroyed by the extraordinary flood of 1875. This bridge, which was opened in September 1892, consists of 14 spans of 101½ feet, and has cost about 4½ lakhs of rupees. Of the works which were completed or in progress during the year under the head of Miscellaneous Public Improvements the most important were various schemes of water supply undertaken on behalf of municipalities. The chief of these works were the Dhulia Water Supply works from the Dedargaon Tank in the Khandesh Collectorate, and the Hubli Water Supply scheme in the Dhárwár Collectorate, both of which made good progress during the year. It is anticipated that the Dhulia Works will be completed by the end of the rains of 1894. Schemes of water supply for Ahmednagar, Násik, and Dhárwár were under consideration. BUILDINGS AND ROADS: CIVIL WORKS.

The protective works to exclude the flood water of the Tapti river from the city of Surat were in progress during the year.

The total expenditure from all sources on Public Works in the Hyderabad Assigned Districts during the year under review, excluding railways, amounted to Rx. 172,520. Berar.

Beyond the alterations to the Hyderabad Residency there were no Imperial Works in progress deserving notice.

The expenditure on provincial public works amounted to Rx. 121,177. These works included the usual class of buildings required by Government for administration and other purposes, as well as the construction and repair of roads. The length of bridged and metalled roads kept in repair by the Provincial Public Works Department, amounted to 861 miles.

Among miscellaneous public improvements was included a scheme for the water supply of the town of Akola, which is estimated to cost Rx. 57,470. The water supply at Buldana was completed during the year. A project for supplying the town of Secunderabad with water, estimated to cost Rx. 70,859, was in progress.

In Coorg there were no works in progress of sufficient importance or interest to deserve individual notice. The total outlay amounted to Rx. 17,950, which was chiefly under the head of Communications. About 88 miles of metalled road, and 90 miles of unmetalled roads were maintained from Imperial Funds, and about 131 miles from Local Funds. Coorg.

A full account of the Public Works operations in the districts under Native administration in India cannot be given owing to the want of information in the case of some of the larger and more independent States. They include, however, many works of great public utility, and some of large size, in many cases carried out by European engineers lent by the British Government. NATIVE STATES.

The Imperial outlay for the year in the Public Works Department in the Central India Agency amounted to Rx. 23,490, in addition to which an expenditure of Rx. 4,253 was incurred from local and cantonment funds, and contributions from Native States. The expenditure was chiefly on communications. The operations of the Public Works Department in the Agency have been much reduced by the transfer to the chief Native States of the care of the metalled roads in their territories, which have been noticed in previous years' reports. The duties of the Public Works Department lie not only in maintaining important lines of communication, such as the Agra and Bombay, Nimach and Mhow, and Nowgong and Sutna roads, and in designing and executing projects within territories which are too intermixed or too impoverished to be treated on the footing of the larger States, but also in advising the States that are capable of executing their own projects as to the direction in which their efforts may be most usefully exerted, and in inspecting the work done by the larger States on behalf of the Imperial Government. The policy of handing over the care of the roads to the more important States has hitherto been justified by the results. Central India.

The expenditure in Gwalior amounted to about 9 lakhs of rupees. The most important buildings in progress were the Victoria College and Memorial Hospital. In the Indore State there was an outlay of Rx. 33,450. Among the buildings under construction may be mentioned the Native General Library, the Darbar Office buildings, and the Holkar College.

BUILDINGS AND ROADS: CIVIL WORKS.

Rajputana.

The expenditure on Public Works in Rajputana, exclusive of the outlay on Irrigation Works in Ajmere-Merwara, amounted, so far as is known, to Rx. 471,942, of which Rx. 426,373 was incurred in the Native States. A sum of Rx. 21,780 was expended in Meywar; the most important items being the construction of the Lansdowne Hospital, and Connaught Bund. In Marwar or Jodhpur, the outlay was Rx. 179,910, chiefly on railways. The most extensive irrigation work in progress was the Bilara Tank. In Jeypore there was an outlay of Rx. 109,071, the largest item of which was the expenditure on irrigation works. The only new buildings of any importance were the Raj buildings at Mount Abu, the Rahdari buildings in Eastern lines, and Nazim's house at Neemka Thana. Ulwar expended 5 lakhs, Kotah 2 lakhs, and Jhallawur 1 lakh of rupees on Public Works, but there was no individual work in progress of sufficient importance to call for notice.

Madras.

In the Native States under the control of the Madras Government there is little of any importance to note in connection with the construction of Public Works.

In Travancore the total sum expended was Rx. 140,851, of which about 4½ lakhs was allotted to communications. Fifty miles of new road were opened for traffic, and Rx. 26,587 was expended on buildings.

In Cochin 23·9 per cent. of the total revenue was allotted to Public Works. The actual expenditure was Rx. 40,704, the largest item being the outlay on buildings.

In the Pudukkottai State there was an expenditure of Rx. 28,040 on Irrigation Works, roads and buildings. New public offices and a hospital were under construction.

Bombay.

Leaving out of account the railways which are dealt with in a separate section, the amounts expended by the Native States in Bombay on public works during the year were generally small, and there were no individual works of unusual importance to be recorded. The most important group of Native States lies in North Gujarát, and covers an area of about 44,000 square miles. Of the Chief States included in this area, Cutch expended Rx. 14,575, Palanpur, Rx. 7,181, Idar Rx. 944. In the Káthiáwár States the outlay in public works amounted to Rx. 227,700, Bhávnagar heading the list with an expenditure of Rx. 107,540. Rs. 21,522 was expended by the Agency Engineer, the principal work in course of construction being the Memorial Institute at Rájkot. It is stated that in Káthiáwár great progress has been made in the matter of roads and communications. Where there was not a single mile of road in 1865, there are now more than 600 miles, for the most part bridged and metalled. Various small sums were devoted to public works in Cambay, Rewa Kántha, and Nárukot.

In the groups of Native States comprised in South Gujarat and North and South Konkan, there is nothing in the public works expenditure to call for detailed notice. The largest amount expended was in Sávantvádi where there was an outlay of Rx. 11,738. The same remark applies to the States in the Deccan and South Mahrátha country. The largest items were an expenditure of Rx. 54,846 in Kolhapur, and of Rx. 12,724 in the Sangli State.

XI.

POST OFFICE AND TELEGRAPHS.

POST OFFICE.

The receipts and charges of the Post Office for the last two years, as shown in the Finance and Revenue Accounts, are given in the following statement:— POST OFFICE.

YEAR.	Receipts.	Expenditure.	Net Revenue.	Net Charge.
	Rx.	Rx.	Rx.	Rx.
1891–92 - - - -	1,445,925	1,496,417	—	50,492
1892–93 - - - -	1,488,863	1,518,556	—	29,693

The deficit of Rx. 29,693 is entirely on postal business. If indirect expenditure in connection with the Post Office were added, on the one hand, and a deduction made, on the other hand, of the charges for the district post (the receipts under which head are not credited to the Post Office), the net financial result would be a surplus of Rx. 25,094.

The extent of the sphere of operations of the Post Office, and its development during the last three years, are shown in the table in the margin. These figures are exclusive of the District Post, of which the Post Offices increased from 1,146 in 1891–92 to 1,307 in 1892–93, the letter-boxes from 2,443 to 2,595, and the staff of village postmen from 2,590 to 2,924.

YEAR.	Post Offices.	Letter Boxes.	Village Postmen.	Length of Postal Lines.
	No.	No.	No.	Miles.
1890–91 - -	8,394	11,961	3,708	74,342
1891–92 - -	8,617	12,848	3,762	77,728
1892–93 - -	8,832	13,292	3,837	80,472
Increase in 1892–93 over 1891–92 -	215	444	75	2,744

YEAR.	Letters (including Postcards).	Newspapers.	Parcels.	Book and Pattern Packets.	TOTAL.
	No.	No.	No.	No.	No.
1891–92 - -	300,619,812	25,910,386	2,108,685	10,711,051	339,349,934
1892–93 - -	311,014,049	26,637,963	2,169,715	12,149,494	351,971,221
Increase - -	10,394,237	727,577	61,030	1,438,443	12,621,287

Of the increase of 2,744 miles in postal lines, 344 miles were under the head of railways, and were almost entirely due to the opening of new sections of railway in various parts of the country, while the total mileage of runners' lines increased by 1,713 miles, mainly owing to the conversion of District Post lines into Imperial Post lines in the Punjab. In addition to the 80,472 miles of Imperial Postal lines shown in the statement, there were 33,283 miles of District Post lines, so that the total length of the lines over which mails were conveyed was 113,755 miles at the close of 1892–93, as compared with 111,133 miles at the close of the previous year.

The general correspondence returns, of which a summary is given above show an increase of over 12½ millions of articles carried by post in 1892–93, as compared with 1891–92. Of this increase, nearly 4½ millions were due to letters and 7 millions to postcards, which represent nearly one half of the entire number of communications passing through the post.

POST OFFICE.

In the Bombay Presidency, including Sind, each person received on an average rather more than two letters, while in Bengal, the Punjab, and Burma, each person received on an average, rather more than one letter. For the whole of India the vernacular correspondence was 55·37 per cent. of the entire correspondence. In the Bombay Presidency where postcards are largely used by natives, the vernacular correspondence was 65·41 per cent. of the whole.

The letters and postcards despatched from India to the United Kingdom in 1892–93 are estimated at 2,855,220 against 2,585,884 in 1891–92, or an increase of 10·42 per cent. Those received in India from the United Kingdom are estimated at 3,081,754 against 2,836,843 in the previous year, or an increase of 8·63 per cent. The effect of the reduction of letter postage to the United Kingdom from 1st January 1891 is now fully apparent. In each of the two years during which the reduced rates have been in force there has been an increase of more than half a million over the figures of the previous year in the aggregate number of letters and postcards exchanged with the United Kingdom. The number of postcards exchanged with the United Kingdom is, however, wholly insignificant compared with the number of letters, and a noticeable feature of the year's exchange was a falling off of about 28 per cent. in the number of postcards received from home.

The number of parcels exchanged with the United Kingdom formed more than 80 per cent. of the whole foreign parcel traffic. There was an increase of 6,646 in the parcels exchanged through the British Post Office; but those transmitted to India through the agency of the Peninsular and Oriental Company fell from 45,374 to 6,580. This decrease was due to the reduction, from 1st January 1892, of the packet postage rates, and the consequent almost total extinction of the business in Peninsular and Oriental book parcels below 5 lbs. in weight, and the reduction by about 50 per cent. in the number of book parcels above that weight. The number of parcels exchanged between India and foreign countries in 1892–93 was 35,847 as compared with 29,379 in the previous year.

The receipts from the insurance of letters and parcels fell to Rx. 19,325, as compared with Rx. 20,274 in the preceding year. The number of insured articles was less by ·67 per cent., the decrease being entirely in the number of parcels insured, and being due to the introduction, from the 1st May 1890, of a limit of Rs. 1,000 to the value for which a postal article can be insured. The amount paid as compensation was Rx. 215, being 1·11 per cent. of the insurance fees, as compared with Rx. 471 and 2·32 per cent. in 1891–92. There were three cases of highway robbery of the mail in Native States during the year, in which insured articles were carried off to the aggregate value of Rx. 467, Rs. 374 of which was recovered from the Native States concerned. The number of articles sent by the value-payable post was over 1,400,000, and the amount recovered by the Post Office from the addressees and repaid to the senders was Rx. 1,516,484. Nearly half of the entire business of the year of this description was transacted in the Bengal circle, which practically means Calcutta. An arrangement with Ceylon for the transaction of value-payable business has been in force for two complete years, and the business is steadily increasing, the effect being that India supplies Ceylon with a considerable quantity of goods. The number and value of inland money orders issued in India, excluding transactions with Native States, increased respectively from 7¾ millions and Rx. 16,441,000 in 1891–92 to nearly 8¼ millions and Rx. 17,192,000 in 1892–93; and the commission realised, from nearly Rx. 206,000 to Rx. 216,000. The plan of remittance in use in India is the payment of money orders at the homes of the persons to whom they are sent, a system which only a few European countries have yet adopted, and one which necessarily imposes much responsibility on postmasters as well as on postmen; but experience has shown that the organisation of the Post Office is not unequal to the task which it has undertaken. The average value of an inland money order was Rs. 20. 13a. 10p., against Rs. 21. 1a. 11p. in the previous year. The application of the money order system to the remittance of land revenue and miscellaneous

miscellaneous Government dues continues to make steady progress in the North-West Provinces and Oudh, and in the Lower Provinces of Bengal. The revenue money order system was introduced as an experiment into six districts of the Madras Presidency and is still under trial; but, owing to the character of the land revenue system in that Presidency, where the ryots are able to pay all Government demands in their own villages, it is not expected that money orders will ever be largely used for revenue remittances. It has been recently decided to apply the same system to the Punjab and the Central Provinces, trial experiments having been made in selected districts in both Provinces. The rent money order system has proved a success in the Lower Provinces of Bengal as well as in the North-West Provinces and Oudh. POST OFFICE.

The system of telegraphic money orders continues to grow in popularity, and the amount thus remitted in 1892-93 was Rx. 1,160,112 against Rx. 1,066,999 in the previous year.

The remittances from India to the United Kingdom by money orders fell from 142,322*l.* in 1891-92 to 129,285*l.* in 1892-93. Those from the United Kingdom to India increased from 72,618*l.* to 78,033*l.*

The deposits in the Post Office Savings Banks rose from Rx. 4,036,708 in 1891-92 to Rx. 4,145,243 in the year under report; the withdrawals from Rx. 3,565,023 to Rx. 3,655,195; and the interest from Rx. 240,891 to Rx. 269,409. The balance at the credit of depositors at the close of 1892-93 stood at Rx. 7,818,773, against Rx. 7,059,316 at the close of 1891-92. The average balance at the credit of each depositor was Rs. 150·08 as compared with Rs 152·32 in the previous year. Of the total number of accounts nearly 90 per cent. were held by natives.

During 1892-93 the total amount invested in Government securities by Savings Bank depositors through the agency of the Post Office was Rx. 26,210 against Rx. 10,890 in the preceding year; and the balance of securities in the hands of the Comptroller General at the close of the year was Rx. 39,740, compared with Rx. 36,820 on the 31st March 1892. The sales numbered 26 against 34 in 1891 92. In the Bombay circle, there was an unusual increase in purchases and a decrease in sales, which were probably due to a temporary feeling of insecurity caused at the time by the failure of the Oriental Bank.

An arrangement for the sale of Government quinine to the poorer classes through the agency of the Post Office has been introduced, as an experimental measure, in Bengal, Assam, and Burma, and is being gradually extended to other provinces.

TELEGRAPH DEPARTMENT.

The following statement refers to the whole of the Telegraph System under the control of the Government of India, including the portion of the Kashmir Telegraph System, which was brought under its control during the year, but excluding the Indo-European section, extending from Karachi to Teheran, for which, as usual, a separate account is given. The system now consists of 41,030 miles of line, 126,251 miles of wire, and 274 miles of cable. TELEGRAPH DEPARTMENT.

During the year Rx. 216,281 were added to the capital expenditure, of which the greater portion was for new lines, the net additions to the system during the year comprising 2,405 miles of line, 6,092 miles of wire, and 21 miles of cable. The total capital outlay at the close of the year stood at Rx. 5,434,661.

The number of telegraph offices open to the public at the end of the year was 3,424, of which 1,100 were departmental or combined offices, and 2,324 were on railways and canals; the net addition to the number of offices during the year was 178.

TELEGRAPH DEPARTMENT.

The following statement shows for a period of five years the progress that has been made in extending public telegraphic communication :—

	Capital Expenditure.	Miles of Line.	Miles of Wire.	Miles of Cable.	Offices Opened.		
					Departmental, Ordinary and Postal combined.	Railway and Canal.	TOTAL.
	Rs.						
Up to beginning of 1888-89 -	4,49,58,470	31,894	93,517	226	745	1,243	1,988
During 1888-89 - - -	16,38,755	1,568	6,137	4	52	91	143
„ 1889-90 - - -	16,75,871	1,817	6,485	—	83	77	160
„ 1890-91 - - -	19,68,580	1,791	7,373	21	69	17	86
„ 1891-92 - - -	19,42,128	1,555	6,647	2	52	—33	19
„ 1892-93 - - -	21,62,811	2,405	6,092	21	99	58	157
To end of 1892-93 - -	5,43,46,615	41,030	1,26,251	274	1,100	* 1,453	2,553

* Excludes 871 offices, which, though open to the public, were entirely in the hands of railway companies.

A general view of the operations of the Department in 1892-93, in comparison with the results of the five previous years' working, will be gained from the following statement :—

Year.	Number of Messages during Year.	Revenue for Year.	Expenditure on Revenue Account.	Surplus on Revenue Account.	Total Outlay on Capital Account to end of Year.	Per-centage of Net Revenue on Capital Outlay.	Capital Outlay during Year.
		Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
1887-88 -	2,802,299	662,866	429,224	233,642	4,277,758	5·46	234,955
1888-89 - -	2,978,998	632,247	434,223	198,024	4,659,722	4·45	377,654
1889-90 - -	3,132,571	663,098	453,645	209,453	4,827,309	4·34	171,896
1890-91 - -	3,407,100	682,885	468,880	214,005	5,024,168	4·26	196,858
1891-92 - -	3,808,998	743,009	483,430	259,579	5,218,380	4·97	194,212
1892-93 - -	3,981,411	758,317	515,700	242,617	5,434,661	4·46	216,281

The whole of the annual expenses connected with the telegraphs in India, whether incurred on capital account for the construction of new lines, or on revenue account for the maintenance and working of the system, are defrayed from the revenues of the Government of India. In 1892-93 the receipts of the Department were sufficient to cover both the working expenses and the amount expended on capital account, and there was therefore no net charge on Government revenues.

The operations of the Department during the year may be considered satisfactory, although owing to increased revenue outlay the net receipts were less than in 1891-92. The increased expenditure is partly due to the facts that extensive renewals of material are now required on the older lines, and that the outlay on this account was exceptionally low in the year 1891-92. A larger signalling establishment has also been found necessary to cope with the growth of the message traffic.

The

The following table shows the total number of telegrams, State and private, inland and foreign, despatched during the last two years, and the revenue derived from them :— TELEGRAPH DEPARTMENT.

	1891-92.		1892-93.	
	Number.	Value.	Number.	Value.
		Rx.		Rx.
State Inland - - - - - -	661,904	145,477	604,124	119,942
„ Foreign - - - - - -	6,404	4,847	6,164	5,238
Total, State - - -	668,308	150,324	610,288	125,180
Private Inland - - - - -	2,627,408	269,543	2,837,513	288,856
„ Foreign - - - - -	513,282	148,405	533,610	162,758
Total, Private - - -	3,140,690	417,948	3,371,123	451,614
GRAND TOTAL - - -	3,808,998	568,272	3,981,411	576,795

The messages sent in the service of the State constituted rather more than 15 per cent. of the whole number, and the payments made by the Government on account of them, made up 21 per cent. of the total revenue of the Department, 21 per cent. in value of the total traffic of the department. The greatly increasing use of telegraphy by the Indian public is gauged by the growth of the inland private traffic, and it is satisfactory to find that in the year under review this class of traffic, when compared with the figures of the preceding year, increased by 8·0 per cent. in number and 7·16 per cent. in value. The following statement shows the development of the revenue from the inland private traffic for the past 10 years :—

	Rx.
1883-84 - - - - - - - - -	141,575
1884-85 - - - - - - - - -	150,463
1885-86 - - - - - - - - -	163,816
1886-87 - - - - - - - - -	181,779
1887-88 - - - - - - - - -	198,181
1888-89 - - - - - - - - -	223,151
1889-90 - - - - - - - - -	227,830
1890-91 - - - - - - - - -	245,328
1891-92 - - - - - - - - -	269,542
1892-93 - - - - - - - - -	288,856

The following figures show the division of the Inland traffic into the three classes of Urgent, Ordinary, and Deferred, during the last two years :—

	PERCENTAGES.					
	Urgent.		Ordinary.		Deferred.	
	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.
State - - - - - -	11·66	13·55	19·00	19·03	69·34	67·42
Private - - - - -	6·04	5·48	42·36	43·08	51·60	51·44
Press - - - - - -	5·41	5·76	22·70	24·93	71·89	69·31

TELEGRAPH DEPARTMENT.

A comparison of the figures for 1892–93, with the average figures for the five previous years, shows that the deferred class of message is steadily gaining in popularity.

The strength of the signalling establishment amounted at the close of the year to 3,070, of whom 1,635 were departmental officers, 351 British military signallers, and 1,064 postal clerks. The net increase during the year in the number of postal telegraph offices amounted to 91, and the number of such offices stood at 845 at the close of the year.

Taking into consideration the increase in traffic, the speed of transmission has been satisfactorily maintained over the main lines of communication. Between Calcutta and Karachi the average time of transmission was reduced from 36 to 25 minutes owing to the fact that messages no longer have to be retransmitted at Agra.

The number of complaints received relating to the Indian Telegraph Department was 1,218, or 0·027 of the total number of messages; and 629 were admitted, of which 209 applied to non-delivery, 134 to delay, and 194 to mistakes. The number of messages that for various causes could not be delivered amounted to 14,156, or 0·302 of the total number received for transmission.

The number of interruptions to communications amounted to 2,017, which is rather less than during the previous year, but the total duration of the interruptions was more. The principal causes of interruptions were cyclones, exceptional storms, and floods. It is satisfactory to notice that, compared with the previous year, preventible defects in lines and cables decreased in number from 313 to 184, and in duration from 5,045 hours to 2,952 hours.

The value of the remittances made by telegraphic money orders rose to Rx. 10,725.

The Inland press telegrams sent numbered 25,834, of the value of Rx. 9,508, against Rx. 9,659 in the previous year. The decrease is due to the fact that during 1891–92 there was a slight increase on account of the Manipur Expedition.

The Foreign press messages numbered 3,261, and the Indian share of the charges thereon amounted to Rx. 1,785.

As regards electrical improvements, the experiments made for the extension of the system of the duplex telegraphy over long distances have been most successful. The introduction of the system on the long circuits between Calcutta and Rangoon has resulted in the reduction of establishment employed on this one circuit alone of one Telegraph Master and twelve signallers.

The electrician of the Department was successful in transmitting messages of 1,000 words with Wheatstone's automatic apparatus between Calcutta and Nagpur, 770 miles, in four minutes, and between Calcutta and Bombay, 1,295 miles, in 5 minutes 10 seconds.

The experiments made with "dry" batteries show that no form has yet been brought forward which is suitable for work in India.

The employment of the telephone increased. At the end of the year 1892 there were 1,231 subscribers and 1,237 exchange connections to the Telephone Companies at Bombay, Calcutta, Karachi, Madras, Moulmein, and Rangoon. There were also 23 exchanges and 188 exchange connections under the control of the Telegraph Department.

The control of the Kashmir State Telegraph system was taken over by the Indian Telegraph Department during the year, and the construction of a line of telegraph from Srinagar towards Gilgit *viâ* the Burzil and Tragbal Passes was vigorously pushed forward, and the reconstruction of the line from Srinagar to the Kashmir Frontier (138 miles) was commenced.

The services of the officers of the Telegraph Department were utilised in the various military expeditions that took place during the year under review, and received the approval of the military authorities. Excellent work was also done by the Department in the instruction of the army in telegraphy and in connection with harbour defences.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

Indo-European Section.

The system of Telegraph lines and cables connecting the terminus of the Indo-European Company's telegraphs at Teheran with the Indian Government system at Karachi, is known as the Indo-European Government Telegraph Department, and consists of two parts, one, designated the Persian Gulf Section, extending from Karachi to Bushire, with a branch to Fão, where a connection is made with the Ottoman Government line; and the other, called the Persian Section, extending from Bushire to Teheran. It comprises 1,717 knots of cable, 1,377 miles of line, and 3,424 miles of wire, exclusive of the Persian Government line from Teheran to Mashed, 562 miles, which is maintained by the Department.

The administration of the Indo-European Department, which in 1888 was amalgamated with the general Telegraph system of India, has been re-transferred to London, with effect from 1st April 1893. It has been found convenient to maintain separate accounts for this section, partly for the sake of comparison with previous years, and partly because the conditions under which the Indo-European lines are worked, and the influences affecting the traffic are completely different from those prevailing on the Indian Telegraph system generally.

The capital account of the Department, which stood at Rx. 1,151,509 at the beginning of the year under review, amounted at its close to Rx. 1,145,969, a decrease of Rx. 5,540, which was due to a reduction of the stores balance.

The earnings on Indian, Trans-Indian, and Local Traffic, including the profit on mean rates *viâ* Turkey, amounted to Rx. 150,825, but adjustments on account of the Joint Purse of the Eastern and Indo-European Companies, and other items, reduced this sum to Rx. 127,651, which amount represents the message revenue of the year. To this an addition has to be made of Rx. 2,600 on account of Miscellaneous Receipts, making the total Revenue Receipts Rx. 130,251.

The traffic earnings were higher by Rs. 23,544 than in the previous year, although the actual number of messages carried was less than in the previous year by 9,589. The increase in value is due to the lower rates of exchange ruling during the year. The balance against the Department on the Joint Purse Account, which was Rs. 2,77,323 in 1891–92, was reduced to Rs. 1,61,321, a reduction of Rs. 1,16,002. The excess actually paid in to the Joint Purse amounted to 10,315*l.*, against 19,289*l.* in the previous year, the decrease being due to a larger proportion of the traffic having been sent by the Suez route.

The gross revenue charges amounted to Rs. 8,64,848 against Rs. 9,98,448 for 1891–92. The decrease is principally due to the smaller expenditure incurred on cable maintenance owing to the approaching completion of the renewals of the Persian Gulf cables; and also to the smaller outlay on line maintenance in the Persian Section owing to the re-insulation being nearly finished. The year's transactions resulted in a net profit of Rs. 4,37,668, compared with a profit of Rs. 1,62,034 in the previous year. The net profit is equivalent to a return of 3·8 per cent. on the Capital Outlay.

The financial results of working for the last five years are compared in the following statement:—

YEAR.	Number of Messages during Year.	Receipts.	Working Expenses.	Net Receipts.	Dividend on Capital.	REMARKS.
		Rx.	Rx.	Rx.		
1888–89 -	115,444	114,460	95,322	19,138	1·72	
1889–90 -	107,315	109,733	104,757	4,976	0·44	Renewal of Cables.
1890–91 -	122,648	106,347	107,220	—873	—	
1891–92 -	127,089	116,048	99,844	16,204	1·40	Re-insulation of Persian line.
1892–93 -	117,500	130,251	86,484	43,767	3·82	

TELEGRAPH DEPARTMENT.

The percentages of gross traffic carried by the Suez and Indo-European routes during the last three years are respectively as follows :—

	Indian Traffic.		Trans-Indian Traffic.	
	Vid Suez.	*Vid* Indo-European.	*Vid* Suez.	*Vid* Indo-European.
1890–91 - - - -	46·67	53·33	83·21	16·79
1891–92 - - - -	43·52	56·48	80·75	19·25
1892–93 - - - -	48·09	51·91	82·49	17·51

The following statement shows the division of the messages tendered for transmission during the last two years :—

		1891–92.	1892–93.
State - - - - -	Messages - - - - -	3,318	2,866
	Words - - - - -	105,353	91,235
	Average words per message - -	31·7	31·8
Commercial and private -	Messages - - - - -	122,037	113,157
	Words - - - - -	1,577,445	1,459,295
	Average - - - - -	12·9	12·9
Press - - - - -	Messages - - - - -	1,323	1,091
	Words - - - - -	45,979	44,451
	Average - - - - -	34·7	40·7
"The Times" - - -	Messages - - - - -	411	386
	Words - - - - -	82,178	65,310
	Average - - - - -	200	169·2

The percentage of errors in the Persian Section was 0·245 and in the Gulf Section 0·121. The accuracy of transmission between Karachi and Teheran thus amounted to 99·6 per cent. There were 120 complaints of error, delay and non-delivery against 98 in the previous year.

There was a satisfactory improvement in the average rate of transmission of messages between Karachi and Teheran. The rate in 1891–92 was 8 minutes 42 seconds, while during the year under review it was only 5 minutes 51 seconds. In the reverse direction, *i.e.*, between Teheran and Karachi, the rate was also reduced from 6 minutes 25 seconds in 1891–92 to 4 minutes 26 seconds during the year under review.

On the Jask-Bushire cable duplex working has been very successful, and instruments have been received for extending similar working between Jask and Karachi.

Communication was not once interrupted between Karachi and Teheran throughout the year, while *vid* Turkey an interruption occurred on the Fao-Bushire cable, which lasted over 10 days. Beyond Teheran the interruptions which stopped traffic amounted to nearly six days in all. The Turkish route beyond Fao was interrupted for 108 days.

The

The average monthly mean rate of transmission between the United Kingdom and Karachi compares as follows with that in previous years :— TELEGRAPH DEPARTMENT

	Viâ Teheran.	*Viâ* Turkey.
	H. M.	H. M.
1888–89 - - - -	1 4	19 28
1889–90 - - - -	0 59	12 14
1890–91 - - - -	0 59	10 25
1891–92 - - - -	0 59	16 12
1892–93 - - - -	0 45	27 47

The percentages of traffic sent by the two routes were respectively 92·9 and 7·0.

EDUCATION.

CHAPTER XII.

EDUCATION AND LITERATURE.

EDUCATIONAL institutions in India are divided into—

(1.) Those in which the course of study conforms to the standard prescribed by the Department of Public Instruction or by the University, and which are either inspected by the Department, or regularly present pupils at the public examinations held by the Department, or by the University. These institutions are called "public."

(2.) Those which do not fulfil the above conditions, which are called private.

The system of education operates, generally speaking, through three grades of institutions, viz. :—

(1.) Primary schools, which aim at teaching reading and writing, and such elementary knowledge as will enable a peasant to look after his own interests ;

(2.) Secondary schools ; and

(3.) Colleges.

Bengal.

The statistics of 1892–93 show an increase in the number of students in colleges in Bengal, as compared with 1891, from 5,225 to 5,443. The number of students who appeared at the first Art Examination in 1892 was 2,310, of whom 1,011 were successful ; of 967 candidates for the degree of B.A. in 1892, 280 passed, whilst in 1893, 301 passed out of 987 candidates. For the degree of M.A., 77 candidates presented themselves for examination, and of these 54 were successful. The total expenditure on these institutions was about Rx. 70,710, of which about Rx. 27,992 was contributed from public funds.

The number of secondary schools rose from 2,285 to 2,326, and the number of pupils from 194,178 to 198,270. The increase occurred in middle English, and middle Vernacular schools, high English schools having decreased by one. The total expenditure on secondary schools was Rx. 268,313, of which Rx. 59,049 was public money. Institutions under public management continued to hold the first place with an average of 81 per cent. of successful candidates at the University Entrance Examination, aided schools following with a percentage of 66, and unaided schools with 59.

It is satisfactory to notice that a perceptible improvement is said to be taking place in the *morale* of the pupils, and a taste for physical exercise is slowly growing up amongst the rising generation throughout the Province.

In primary schools the returns show a loss of 1,054 schools as compared with 1891–92, but the decrease in the number of pupils was only 317. The decrease in the number of schools occurs entirely in the lower class, and is accounted for by the poverty caused by the agricultural distress in Orissa and Patna. The number of upper primary schools has increased during the year, and the returns show a steady growth in the last five years. The expenditure from public funds on primary schools was Rx. 78,742 in 1892, of which Rx. 16,966 was contributed from provincial revenues, and Rx. 61,776 from district funds.

District Boards are now beginning to recognise the value of technical education, and the Government of Bengal was considering in what manner local efforts could best be turned to practical advantage.

The only point calling for special notice in regard to European education is the large and increasing proportion of scholars in the Roman Catholic schools, which is now more than 53 per cent., though Roman Catholics form only about 30 per cent of the European and Eurasian population of Bengal. The total number of scholars of this class has increased in the last 10 years by more than 33 per cent.

During

EDUCATION.

North West Provinces and Oudh.

During the last five years the number of schools and colleges in the North West Provinces and Oudh has declined from 11,762 to 10,868, and the number of scholars from 311,893 to 289,416. This result is caused by the abolition of a large number of inefficient schools, the funds thus set free being applied towards improving the quality of the instruction given elsewhere. The expansion of University and high education during this period has accordingly been considerable, the number of scholars attending colleges and high schools respectively having increased from 1,521 and 1,880 in 1887-88 to 2,641 and 2,458 in 1892-93. All other stages show a decrease.

Since the previous year, three new colleges have been added to the list, and one ceased to give instruction beyond the matriculation stage. The intermediate examination was for the first time divided into a literary and scientific course, corresponding to the course for the B.A. examination. The literary course attracted 259 candidates, of whom 116 passed; for the scientific course 78 candidates presented themselves, of whom 51 passed. For the B.A. degree there were 227 candidates, of whom 107 out of 184 passed in the literary, and 26 out of 43 in the scientific course. For the M.A. degree there were only 20 candidates, of whom 14 passed. The number of Anglo-vernacular or English-teaching schools was 113, of which 37, with 7,036 pupils, were State schools, and 76, with 12,009 scholars, were aided. The average expenditure per pupil in State schools is considerably higher than in aided schools, but the higher expenditure has resulted in a higher average standard of instruction.

The teaching of science and drawing was experimentally introduced in certain selected high schools during the year. About 50 per cent. of candidates from Anglo-vernacular schools passed the matriculation examination for the University. There was considerable progress in the matter of out-door games and gymnastics.

Of vernacular schools, the higher class (which are really primary schools in respect of two-thirds of their attendance) numbered 315, all maintained by the State, and the average monthly number of pupils was 26,915. The lower class or primary schools numbered 3,878 with 140,395 scholars, the corresponding figures for 1891-92 having been 3,928 and 135,757. Thus a reduction in the number of schools has been followed by an increase in the number of scholars, but it appears that education had not yet penetrated to the actual tillers of the soil, as the great majority of the pupils are of the higher castes.

The education of native girls was still in a very backward condition, and the results of such attempts as have been made (mainly by missionaries) was not encouraging.

Punjab.

There were in the Punjab in 1892-93, 164 fewer schools and colleges, and about 9,000, or 4 per cent., fewer scholars than in the previous year. This is attributed chiefly to the unhealthiness of the year, and the loss fell mainly upon private primary schools. In round numbers, about 200,000 persons out of a total population of 20,000,000 are being educated to a greater or less extent, and of these about three-fourths obtain instruction in "public" institutions. The proportion of boys who attend school to those of school-going age is about one in eight, and of girls less than one in 100. The expenditure on schools from public funds increased during the year by nearly Rx. 14,000; but contributions by municipalities declined. The number of students who presented themselves at the University Arts Examinations was somewhat larger than in the previous year, and about 41 per cent. of the candidates succeeded in passing for the B.A. degree, whilst seven out of 12 were successful in the M.A. test. The experiment of providing an advanced education through the medium of the Oriental languages, which has been tried by means of the Oriental College, has proved very costly and cannot be considered to be a success; in the present year nearly two-thirds of the candidates failed. The number of pupils in secondary schools increased slightly during the year, and over 10 per cent. of the scholars now pass beyond the primary stage. The Anglo-Vernacular Schools are increasing in popularity, because the training which they afford is the likeliest road by which to reach the Government Service. Primary schools showed a diminished attendance, and the special Zemindari schools, which were

EDUCATION.

were designed to meet the wants of the agricultural population, were not successful. Improvement was noticed in the moral tone and discipline of the schools of all classes, and greater attention was devoted to physical training. In female education there were some slight signs of progress, but the prospect was not encouraging.

Burma.

In Lower Burma, owing to the removal from the list of public institutions of certain inefficient schools in the Thayetmyo District, the number of public schools fell from 2,781 to 2,577; but the list of "private" institutions was swelled by the addition not only of the above, but also of certain hitherto unknown schools, from 3,366 to 3,942. In public schools there was a decrease of more than 2,000 pupils; but the total number of pupils in all schools increased by over 5,000. The average daily attendance at Rangoon College rose to 48, as compared with 42 in the previous year. The results of the examinations were also good. In secondary schools there was a marked increase in attendance, and the result of examinations was good. In primary schools, though the number decreased, the quality of instruction improved. In the Arakan Division school fees were unpopular, and no general desire for education appeared to exist. Female education was progressing satisfactorily, for, though the higher schools decreased by eight, they had 30 more pupils, and the number of girls attending indigenous schools increased largely.

In Upper Burma the unfortunate attitude of hostility to secular instruction assumed by some leading Buddhist ecclesiastics at Mandalay, caused a decrease of 1,316 in "public" primary schools, which involved a loss of 10,087 pupils. The higher grades of secondary schools appeared for the first time in the returns, and private schools rose in number from 2,458 with 10,277 pupils to 5,757 with 45,927 pupils. This was partly accounted for by the withdrawal of inspection from monastic schools. The number of Buddhists receiving secondary education more than doubled during the year. Considerable improvement was observed in the primary schools, and away from Mandalay the opposition to secular education was dying out. The education of girls showed very satisfactory progress.

Central Provinces.

In these Provinces special attention was paid to the development of primary education, and as many as 300 new schools were opened by the end of the year under review. The difficulty of securing an adequate teaching staff was being met by the formation of training classes for village schoolmasters in connection with the principal secondary schools. The provision of boarding-houses for the reception of pupils in middle and high schools was undertaken in order to meet the increased demand. The desire of the administration to encourage a practical as distinguished from a purely literary training was manifested by the introduction during this year of the "School Final Examination" of the Allahabad University. The number of high schools and colleges remain unchanged; all other classes showing a large increase except English middle schools which decreased by one. The number of girls receiving education increased from 5,990 to 6,374.

Assam.

The number of schools in Assam during the year increased by 184, and that of scholars by 4,734, the chief increase being in the primary stage. A noteworthy feature in the year's report is the establishment of an Arts College, founded by a Sylhet Zamindar. The total number of high schools increased by one, an unaided middle English school being raised to the status of a high school. The results of examinations in this class of schools were satisfactory and compared very favourably with those of the previous year. The same may be said of the middle English and vernacular schools; but in the former class there was a slight falling off in the attendance. In primary schools there was a satisfactory increase both of numbers and attendance, especially in the lower class of aided schools. In female education a considerable advance in the number of pupils was recorded, but the difficulty of persuading parents to allow their daughters to appear at a public examination has not yet been overcome.

Coorg.

The report on education in Coorg shows a satisfactory increase in attendance, and the Province compares favourably with any other Province in respect both of male and female education, nearly every Coorg boy and quite 25 per cent. of Coorg girls being at school. The education of

the

the lower or Pariah classes in North Coorg continues in a very backward condition. EDUCATION.

In Berar the number both of schools and scholars, males and females, increased during the year, the increase in aided schools being especially satisfactory. The hope of inducing the wild tribes of Kurkus and Gonds to send their children to school is still far from realisation. The points to which special attention had to be directed were female and industrial education. Berar.

In Madras 15 candidates presented themselves for the M.A. examination of the University, as against 16 in the previous year. Of these 10 were successful in passing, as against 6 in 1891–92. The numbers of candidates who under the revised bye-laws appeared for the three divisions of the B.A. examinations, namely the English Language, Second Language and Science Divisions, were respectively, 658, 649, and 594, of whom 510, 569 and 312 proved successful. The number of first grade colleges rose during the year from 11 to 12, and the strength of the B.A. classes from 1,056 to 1,355, while the students attending the F.A. classes declined from 1,652 to 1,203. This decrease is to be referred wholly to the Junior F.A. class, which did not receive the usual supply of students in consequence of the very poor results of the preceding Matriculation examination. The number of second grade colleges decreased by one during the year, and the attendance of the F.A. classes fell from 1,099 to 966. The number of candidates who appeared at the Matriculation examination under the revised bye-laws was 3,369 as compared with 7,907 in the previous year. The decrease was more serious than had been anticipated, but was in part accounted for by the rule restricting admissions, except in special cases, to pupils who had studied in recognised high schools for a certain period. Of the 3,369 candidates, only 520 passed, being a percentage of 15·4, as against 30·1 in the previous year. The number of public upper secondary schools for boys fell from 136 to 134, but the strength of the upper secondary classes increased from 8,594 to 10,071 and that of the lower secondary classes from 10,853 to 11,432. Omitting lower secondary departments of high schools, the number of lower secondary English schools fell from 353 to 226. This decrease was, however, apparent only, being due to a different mode of classification of English and vernacular schools. The latter were returned for the year as 234, against 89 in 1891–92. The total number of boys receiving lower secondary education rose from 22,328 to 23,506 during the year under review. The number of public primary schools for boys rose from 18,059 to 19,097, and that of the pupils in them from 517,638 to 550,446. The number of pupils in the upper primary stage was 35,825 as against 32,228 in 1891–92. Public primary schools for girls advanced in number from 796 to 808, and the attendance in them from 31,074 to 32,457. The number of private schools furnishing returns to the Department increased from 3,403 with 64,473 pupils to 3,455 with 65,894 pupils. The expenditure from all sources on education in Madras, omitting figures relating to private schools, advanced from Rx. 574,434 to Rx. 596,036. Of this sum Rx. 184,390 came from provincial funds, Rx. 76,977 from local funds, Rx. 21,874 from municipal funds, and the balance from fees, subscriptions, and other sources. Madras.

The total number of persons receiving instruction at institutions of all sorts in the Bombay Presidency, during the year under review, rose to 646,382 from 634,438 in the previous year. Of this total 575,369 pupils received instruction at 9,794 public institutions as compared with 566,606 at 9,501 public institutions in 1891–92; and 71,013 pupils were taught at 2,813 private institutions, as compared with 67,832 at 2,771 private institutions in the previous year. On the assumption that the population of school-going age is accurately represented by 15 per cent. of the whole population, the percentage of male scholars to male population of school-going age was 27·50, while that of female scholars was 3·87. The grand total of persons, both male and female, receiving education at whatever class of institution, represented 16·06 per cent. of the population of school-going age, against a percentage of 15·76 in the previous year. The increase of 293 public institutions and 8,763 persons attending them was fairly distributed over each department of education. The number of boys under instruction Bombay.

EDUCATION.

instruction in public institutions rose from 499,174 to 507,028 in the year under review, and that of girls from 67,432 to 68,341. The number of Hindus receiving instruction in public schools was 439,604, and of Mahomedans 98,691, the increase of pupils since the end of the previous year being 1·1 per cent in the case of the former and 1·55 per cent. in the case of the latter. The number of colleges increased by one during the year; the number of secondary schools by 14; and the number of primary schools by 276. There was an increase during the year in the expenditure upon public institutions from every source; and the total sum expended upon education was approximately 66⅓ lakhs of rupees against 62⅔ lakhs in the previous year. To this sum provincial funds contributed Rx. 196,563 or 29·7 per cent of the whole cost. The other sources contributing to the expenditure were, local cess 14·3 per cent., muncipal rates 6·2 per cent., fees 20·9 per cent., revenues of Native States (including cess and rates) 12·4 per cent., and all other sources 16·5 per cent.

The number of students who succeeded in passing the first B.A. examination was 82, while 68 passed the intermediate examination. For the entrance examination 1,571 candidates were sent up by the schools, of whom 917 passed, while only 137 passed out of 1,348 who went up without school certificates. The number of girls receiving a primary education inceased from 41,253 in 1891–92 to 41,693 during the year.

LITERATURE AND THE PRESS.

LITERATURE.

The Act XXV. of 1867, passed by the Governor General of India in Council, for the regulation of printing presses and newspapers, provided, amongst other things, that every book or paper printed within British India shall have printed legibly on it the name of the printer and the place of printing, and (if the book or paper be published) of the publisher, and the place of publication. It also provided for the registration of every book, pamphlet, map, &c., printed or lithographed in British India.

This Act was modified by Act X. of 1890.

Bengal.

The total number of English newspapers published in Bengal during the year 1892–93 was 40, and the total number of periodicals was 17. Sixty-four vernacular newspapers were published. The number of publications received in the Bengal Library was 1,675, against 2,177 in the preceding year; of these 289 were in English, 423 were periodicals, 275 bi-lingual and 977 uni-lingual; of the last class 548 were in Bengali, 202 in English, 71 in Hindi, 60 in Sanskrit, 45 in Uriya, and 14 in Urdu. Of the original works of the year, 205 dealt with "Language," 106 treated of "Religion," 92 of "Poetry," 65 of "Science," 58 of "History," 44 of "Fiction," and 33 "Drama."

During the year, 1,763 publications were registered under the Act, against 1,550 in 1891–92.

North West Provinces and Oude.

In the North West Provinces and Oude, 23 new papers were started during the year, and 27 ceased to be published, leaving 83 on the register. The majority of the papers are weekly publications. 22 are published in Lucknow, 16 in Maradabad, 14 in Agra, 11 in Cawnpore, eight in Benares, six in Fategarh, and five in Allahabad. Very many of the papers are devoted to religion or to the interests of a particular community; others concern themselves with local events, while not a few persistently attack the conduct and character of Government officials.

Of works in the English language there were 61 publications, one more than in the previous year.

There were 902 publications during the year, as against 959 in 1891–92. The decline in the number was mainly in publications in Arabic, Persian, and Polyglot.

Punjab.

In the Punjab 65 newspapers were published during the year; thirteen had a circulation of 500 copies or upwards. "The Tribune," the only one published in English, had a circulation of 1,400 copies. The total number of publications registered under Act XXV. of 1867 was 1,483, of which 1,098 were original works, and 385 re-publications and translations; 345 were of an educational and 1,138 of a non-educational character. Of the 1,483 works, 745 were in Urdu, 308 in Punjabi, 86 in English, 79 in Hindi, 54 in Persian, 48 in Arabic, and seven in Sanskrit.

Literature.

Burma.

Forty-seven publications were registered during the year, against 176 in 1891–92; of these 11 were of an educational and 36 of a non-educational character. Religion was the subject of 23, language of 11, one treated of law and one of mathematics, and seven were dramatical or poetical compositions, 39 were original works, and eight re-publications or translations. Five of the publications were in English, 18 in Burmese, seven in English-Burmese, one in English-Karen, one in Pali, 11 in Pali-Burmese, one in Karen, one in Sgau-Karen, one in Shan, and one in French.

The total number of periodicals published in Burma, irrespective of the daily advertising sheets, was 30, of which five were printed in the Arakan division, 15 in the Pegu division, five in the Tenasserim division, two in the Irrawaddy division, and three in the Northern division.

Central Provinces.

Ten vernacular and English newspapers are published in the Central Provinces. Eight publications were registered during the year, of which three were in Hindi, three in Marathi, one in Hindi and English, and one in English.

Ajmere, Coorg, and Bangalore.

There was nothing under the head of Literature and the Press calling for special notice, as regards Ajmere, Coorg, and Bangalore.

Madras.

There was a great increase in the number of publications registered in Madras during the year, the total number being 982, as against 784 registered in 1891–92. The number of books and pamphlets was 799, and that of periodicals 183. Out of the total number 695 were original works, 206 re-publications, and 81 translations. Reprints (without alterations) are no longer brought for registration; and works which are republished or translated are generally of some value. 242 were published in English; 740 in the vernacular languages spoken in the Province. Of the latter publications those in Tamil (283) take the foremost place, while those in Telugu (199) and Sanskrit (66) rank next. There were 163 poetical works, as against only 59 the previous year. Religious publications numbered 362. A few works on music appeared during the year, their appearance being probably, to some extent, due to the foundation of the Madras School of Music. 272 works were copyrighted, against 240 in the previous year.

Bombay.

The total number of publications registered in Bombay during the year was 1,368—viz., 860 books and 508 periodicals. Of these 1,003 were original works, 221 re-publications not previously registered, and 144 translations. The total was below that for 1891, which was 1,408. The number of books published in English rose from 71 to 82 and that of periodicals from 66 to 95.

Gujarati works numbered 430, Mahrati 405, as against 527 and 387 respectively in the previous year. Publications in Urdu rose from 25 to 41, while those in Hindi fell from 22 to 21. In the classical languages there were 43 Sanskrit publications, four in Persian, six in Arabic, and four in Hebrew.

The number of works registered for copyright during 1892 were 322, against 409 in the preceding year. Of these 274 were private and 48 were Government publications. The literary productions of 1892 were below those of the two previous years, both in point of quality and quantity. Indeed it would seem that, notwithstanding the spread of education, the amount of original vernacular literature that is yearly published is slowly but surely decreasing.

At the end of the year under review there were in all 148 newspapers and 28 periodicals treating of current matters, against 137 newspapers and 23 periodicals of the previous year. There was no appreciable improvement in the circulation of newspapers over that of 1891–92.

Berar.

The number of books registered in Berar was 21, against 13 in the previous year.

CHAPTER XIII.

EMIGRATION.

EMIGRATION AND MIGRATION.

Calcutta.

In the year 1892 requisitions for adult labourers were received at Calcutta from only five colonies, with the following results :—

	Required.	Supplies.
Demerara - - - - - -	4,555	4,438
Trinidad - - - - - -	2,500	2,435
Natal - - - - - - -	900	942
Fiji - - - - - - -	1,370	1,450
Surinam - - - - - -	1,233	1,150
TOTAL - - -	10,558	10,416

The demands were in all cases less than in 1891, and there were no demands from St. Lucia, Jamaica, or Mauritius. The terms on which emigrants were engaged continued to be the same as in the previous year, except with regard to Fiji and Natal. In the case of Fiji the age entitling an emigrant to rations and return passage was raised from 10 to 12 years; and in the case of Natal, the right to a license to leave the colony save with the written permission of the Protector was restricted to Immigrants who had resided in the colony for 10 years.

The number of recruiting licenses fell from 1,003 to 857, two of which only were cancelled on account of misconduct, as compared with fourteen in the previous years. The number of emigrants registered during the year was 17,225, the percentage recruited in Bengal and Behar being 30 as compared with 21 in 1891. The transfer of the recruiting ground from these provinces to the N. W. P. and Oudh, which was noticed in recent years, appears to have been checked. Only in the Shahabad District was there much competition between recruiters for the colonies and those for the Indian labour-districts; it is generally found that Hindustanis prefer, or are preferred for, the colonies, while Bengalis largely resort to Assam.

Of the total number of labourers registered, about 14 per cent. were either rejected for various reasons, or died or deserted, the remainder being forwarded to the Agencies' depôts. There was some improvement in the proportion of emigrants received at the depôts who were finally accepted as fit for labour in the colonies. This matter deserves and receives close attention, since the position of expectant emigrants who have broken up their homes and have to be dismissed with a small gratuity, is a very miserable one.

The health of coolies at the depôts and the sanitary arrangements are reported to have been satisfactory, and there was a marked absence of cholera and small-pox. The principal cause of sickness and mortality was chest affections. In the Natal depôt, in January and February, diseases of this class were especially rife and in a large number of cases proved fatal.

The detention of emigrants in the depôt for periods exceeding one month was less frequent than in the previous year; the cause in all cases was delay in the arrival and equipment of chartered vessels. The proportion of female to male emigrants was unusually high, in some cases considerably exceeding the prescribed 40 per cent.

The aggregate savings of the emigrants who returned to India during the year (5,225 in number) amounted to 8,15,247 rupees, or an average of 156 rupees per head. The best result was found amongst those who came back

back from Jamaica, 13 in number, who brought back an average of over 1,000 rupees each. By far the lowest average, viz., 23 rupees, was saved in Mauritius.

Madras. Natal was the only colony which drew supplies from Madras during the year. Seven shipments were made numbering 3,030 men, women, and children, the percentage of women to men being 42. The treatment of the coolies was very satisfactory, and, except for a mild outbreak of measles, their health was good throughout.

Two ships returned from Natal conveying 214 coolies whose savings amounted to 35,000 rupees; and three from Mauritius conveying 679 coolies whose savings amounted to 13,744 rupees only.

MIGRATION.

Assam. The total number of immigrants of all classes into Assam during 1892 showed an increase over the previous year of about 12 per cent., and the large number of men who were accompanied by their families is regarded as a proof of the growing popularity of the Assam tea-gardens. The main supply of coolies was, as usual, derived from Chota Nagpur, but recruitment also improved in Bengal proper. Madras appears for the first time as a recognised source from which labourers can be legally drawn, the provision of the Inland Emigration Act having been brought into operation in the Ganjam district.

The most striking feature in the years' report is the continued development of free emigration. The mortality on the Dhabri route leading to the tea-gardens of the Assam Valley was heavy owing to an outbreak of cholera, which prevailed during the recruiting season. On the Gorlundo route which leads both to the Assam Valley and to the Surma Valley, the mortality was normal, while in Cachar there were fewer deaths than usual. Complaints of kidnapping and fraudulent recruitment were in all cases carefully investigated, and the proportion of charges found to be true was again insignificant. The contracts executed at the Dhubri depôt were, as usual, for the most part for the full term of 5 years; those entered into at the gardens, which, so far as the Assam Valley is concerned, are mainly renewals, were generally for terms not exceeding 3 years.

The labour force rose during the year from 437,303 to 461,647. The conduct of the labourers was neither better nor worse than usual, but the number of desertions was unusually large amongst both Act and non-Act labourers. It is found that the unhealthiness of particular gardens is the most frequent cause of desertion. The death-rate for the year was abnormally high, owing partly to cholera and influenza, but also, and perhaps mainly, to the influx of a larger number of new coolies, many of whom were of poor physique. 143 gardens were classed as unhealthy, as against 89 in the previous year, and a special agency for the inspection of gardens and enforcement of sanitary rules was created.

Burma. Neither emigration from, nor immigration into, Burma presented any special features. There was a slight increase in the figures of 1892 as compared with the previous year.

XIV.

TRADE AND MANUFACTURES.

(Detailed information regarding the Trade of British India being annually furnished in a separate Parliamentary Paper, a brief Review only is given in the present Chapter.)

TRADE.

TRADE

THE total trade of British India with other countries by sea and land during the five years ending on the 31st March, 1893, was valued as follows :—

	Tens of Rupees.				
BY SEA.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
Private Imports :					
Merchandise - -	66,570,318	66,560,121	69,034,900	66,587,457	62,605,030
Treasure - -	13,844,960	17,459,301	21,919,486	14,722,662	17,009,810
	80,415,278	84,019,422	90,954,386	81,310,119	79,614,840
Private Exports :					
Merchandise - -	96,978,171	103,396,862	100,135,722	108,036,010	106,535,997
Treasure - -	1,703,497	1,841,920	2,071,906	3,143,186	6,928,994
	98,681,668	105,238,782	102,207,628	181,179,196	113,464,991
Government Transactions :					
Imports { Stores	2,870,149	2,637,368	2,940,470	2,844,926	3,660,247
Imports { Treasure	0	200	15,000	0	0
Exports { Stores	71,361	63,536	91,626	137,582	59,479
Exports { Treasure	80,850	64,402	51,272	143,500	29,929
	3,022,360	2,765,506	3,098,368	3,126,008	3,749,655
TOTAL Trade by Sea	182,119,306	192,023,710	196,260,382	195,615,323	196,829,486
BY LAND :					
Imports - -	4,226,145	3 793,701	4,025,305	4,249,592	3,895,389
Exports - -	4,696,702	9,210,625	4,642,478	4,067,644	3,594,690
GRAND TOTAL -	191,042,153	201,028,036	204,928,165	203,932,559	204,319,566
Excess imports of treasure - -	12,060,613	15,553,179	19,811,308	11,435,976	10,050,187
Net excess of exports over imports of merchandise, Government transactions, and treasure - - -	16,019,009	20,126,654	9,057,843	27,123,285	29,978,613
India Council Bills paid in India - -	22,011,453	22,609,765	19,090,630	23,248,600	26,977,500

India's trade has thus made practically no advance during the last three years. During the past five years the total increase in value has been under 8 per cent., as against 19½, 22, and 25½ per cent. in the three preceding quinquennial periods. The stationary character of India's trade is ascribed partly to the depression of trade in Europe, and partly to the further sharp fall in the gold value of the rupee, from an average of 1*s.* 6*d.* in 1890 91 to an average of 1*s.* 4¾*d.* in 1891-92, and of less than 1*s.* 3*d.* in 1892-93. During the last year there was a decline in either quantity or value, or in both, under all the more important staples of the import trade, and in wheat, rice, tea, opium, hides, and linseed among the chief export staples; there was some increase in exports under the heads of jute, indigo, rape seed, til seed, and teak. TRADE.

Salt importations decreased by 14,000 tons, or more than 3 per cent.; owing to increased cheapness of inland transport, local salts undersold the imported article, and the total consumption of salt in India continued to increase. The imports of sugar were 12,000 tons less than in 1891-92, and 50,000 tons less than in 1890-91. The importations of metals and hardware decreased under almost every head; imports of iron are now no larger (175,000 tons) than they were ten years ago; imports of steel, though below the total of 1891-92, are more than double the figure for 1883-84. The proportion of iron that India takes from Germany and Belgium is increasing considerably in comparison with the imports from the United Kingdom. Imports of cotton twist and yarn fell by 24 per cent. during the year; and imports of cotton fabrics fell by 4 per cent.; but stocks were low at the end of March 1893, and a greatly increased quantity of cotton goods was imported in the latter half of 1893. Petroleum was the only important item of the imports that showed a large increase—namely, 16 per cent. (or nine million gallons) over the previous year; of Russian petroleum, which came to India for the first time in 1884, there were imported 38 million gallons, against 26 million gallons from America. The output of Burma and Assam petroleum is also increasing; while the importations of foreign petroleum have doubled since an import duty was imposed on the commodity in the year 1888.

The export trade showed a considerable fall in the quantity and value of the rice trade, but the largest decrease was under the head of wheat, of which the exports were 749,000 tons, against 1,501,000 tons in 1890-91, when the failure of food crops in Eastern Europe caused an unusually strong demand for Indian wheat. Tea exports declined by nearly 2 per cent. in quantity, but increased by more than 5 per cent. in value. England now imports from India and Ceylon together more than three times as much tea as she takes from China. Opium exports declined 8 per cent. in quantity and 3 per cent. in value. Indigo exports advanced one per cent. in quantity and 29 per cent. in value. Exports of raw cotton increased 8 per cent. in quantity and 20 per cent. in value over the very low figures of 1891-92, the smallest for ten years; but the total value, 12¾ millions, was still far below 16 millions, the average value of India's cotton exports during the four years, 1887-91. Exports of raw jute advanced 23 per cent. in quantity and 16 per cent. in value. The trade in seeds fell off 17 per cent. in quantity, in consequence of a partial failure of the crop in both Eastern and Western India; but the value decreased by only 5 per cent. There was an increase of 17 per cent. in the quantity and in the value of Indian yarn exported; more than 92 per cent. of this trade goes to China; the despatches of Indian yarn to Japan have decreased, while the export of raw cotton has greatly increased during the last two years, in consequence of the establishment of cotton factories in that country. Exports of jute bags and jute cloth increased 28 per cent.

The values of the chief staples of import and export during the year 1892-93 were:—

TRADE.

VALUE OF IMPORTS.	Tens of rupees.	VALUE OF EXPORTS.	Tens of rupees.
Cotton woven goods	22,942,000	Raw cotton	12,743,000
Metals and hardware	6,599,000	Rice	12,259,000
Oils, chiefly petroleum	2,919,000	Oilseeds	11,631,000
Silk, raw and manufactured	2,817,000	Jute, raw and woven	11,182,000
Cotton yarns	2,683,000	Opium	9,255,000
Sugar	2,625,000	Wheat	7,440,000
Machinery and mill work	2,359,000	*Cotton yarns	6,773,000
Provisions	1,862,000	Tea	6,292,000
Chemicals, medicines, dyes	1,615,000	Hides and skins	6,591,000
Woollen goods	1,523,000	Indigo	4,141,000
Liquors (alcoholic, including beer)	1,447,000	Coffee	2,066,000
Apparel	1,383,000	*Cotton woven goods	1,327,000
Total, including minor items	62,605,030	Total, including minor items	106,535,000

* *Note.*—The figures given here are exclusive of re-exports of foreign goods.

Among the maritime Provinces of India the Bombay Presidency had 38·86 per cent. of the foreign trade in merchandise, Bengal had 38·34 per cent., Madras had 9·68 per cent., Burma had 8·66 per cent., and Sindh had 4·46 per cent. The proportion pertaining to Sindh and Bombay is smaller than in the preceding year by reason of the great decrease in wheat exports. Among the chief seaports Bombay had 44·68 per cent., Calcutta 34·43 per cent., Rangoon 6·51 per cent., Madras 4·77 per cent., and Karachi 4·01 per cent. of India's total foreign trade in merchandise and treasure. The greater part of the trade in treasure belongs to Bombay; in merchandise, Bombay and Calcutta are more nearly equal, the former showing 65¾ millions and the latter 63¾ millions as the total value of their export and import trade.

One feature in India's trade during 1892–93 remains to be noticed. For the past 33 years India has absorbed yearly vast quantities of gold and silver bullion; during the whole period gold to the value of Rx. 126,000,000 and silver to the value of Rx. 260,500,000 have been imported into, and retained in, India. In every year since 1859, except 1878–79, the gold imports exceeded the gold exports by a large sum; and the average net imports of gold during the past 13 years were Rx. 3,750,000. But in the year 1892–93 the flow of gold was the other way; and India's net exports of that metal were valued at Rx. 2,812,682, against a net import of Rx. 4,594,472 in 1891–92, and large net imports in every other year, reaching in 1864–65 as high as Rx. 9,839,964. This unusual export of gold from India was due mainly to the high silver price of gold in the markets of the world. The net importations of silver during the year were Rx. 12,894,498, against Rx. 9,175,684 in the year 1891–92 and Rx. 14,211,407 in the year 1890–91.

MANUFACTURES.

MANUFACTURES. General.

The domestic industries of India, such as weaving and spinning, pottery, brass-work, iron-work, and art work of many kinds, continue to be practised after ancient methods all over the continent of India. But Indian fabrics and products, made on a small scale by workers at their homes, have for years past been giving way before the cheaper cotton yarn and fabrics, and the iron or steel products, of British factories. Meanwhile, without any protection, favour, or advantage, other than is afforded by cheap Indian labour, and by the production

production of raw materials in India, an important manufacturing industry has been growing up, and steam-power factories are at work, among which those for spinning and weaving cotton, for spinning and weaving jute, for making paper, for husking and cleaning rice, for sawing timber, and for brewing beer, are the most important. Steam power is also largely employed in factories on tea gardens and indigo estates. There were at the end of the year 1892-93, 130 cotton mills worked by steam, of which five were opened during the year; of these, 88 were in the Bombay Presidency; and the whole represented a nominal capital of more than Rx. 12,000,000. These cotton mills employ over 121,000 hands. They contained 26,317 looms and 3,378,303 spindles. MANUFACTURES.

The number of jute mills increased during the year from 26 to 27; all but two are in Bengal. The nominal capital of these mills is about Rx. 3,500,000. They employ 62,000 hands on 8,101 looms and 161,845 spindles.

Fifty-eight rice mills, for husking and cleaning rice, and 69 saw mills, most of which were in Burma, employed about 38,000 hands; the amount of white, or fully cleaned rice, produced by the rice mills continues to increase, while the proportion of cargo or half-cleaned rice exported decreases. The produce of the paper mills, of which there were four in the Bombay Presidency, and four in other parts of India, had increased in value to Rx. 328,000, against Rx. 289,000 in 1889. There were 21 breweries at work, which produced during the year 4,831,000 gallons of beer and porter, or 300,000 gallons less than they yielded three years before. The Commissariat Department, which bought, during 1888, 4,628,000 gallons of this malt liquor, purchased in 1892 only 2,748,000 gallons for the use of European soldiers.

Among other "large industries," which are shown in the Indian Returns for 1892, may be mentioned:—

Woollen mills	5	Cutch and lac factories	84
Silk mills	8	Oil mills and factories	89
Soap factories	2	Flour mills	146
Tanneries	46	Ice factories	32
Iron and brass foundries	78	Pottery and tile factories	21
Sugar factories (large)	12	Bone-crushing factories	15
Coffee works	31	Tobacco and cigar factories	46
Cotton and jute presses	401	Silk filatures	75
Cotton and woollen factories not classed as mills	14		

Bengal contains jute mills, cotton mills, paper mills, collieries, the only large iron works, and the largest pottery factory in India, besides factories for lac, sugar, rope, indigo, and saltpetre, tanneries, and foundries. Th eproduction of cotton stuffs by domestic looms in Western Bengal is said to have increased in consequence of the rise in the exchange value of the rupee. The year was favourable for the jute mills, for the silk industry in Central and Northern Bengal, for saltpetre works in Behar, and for tobacco. But the season was unfavourable for sugar and for indigo. The output of the mica mines in Chota Nagpore and Gaya showed a considerable increase over the previous year, as did also the yield of the collieries. Bengal.

Among native industries in the North West Provinces, brass-work, stone-quarrying and stone-carving, and weaving, are the most important; but these provinces, which contain more large cities than any part of India, possess a great number of flourishing arts and crafts. Of large industries besides indigo, there are five cotton mills, one woollen mill, and one paper mill. North West Provinces.

In the Punjab there are few large industries. As has been mentioned in previous Statements, the Punjab Government publishes every year a monograph on some one of the principal industries of the province. The monographs of the three preceding years were upon the brass and copper industries, upon work in gold and silver, and upon the fibrous plants of the Punjab other than cotton. In 1891-92 the subject was leather industry. Punjab.

There are in the Punjab two great castes of leather workers, the Chamárs who number nearly 900,000, and are mostly Hindus; and the Mochis, who number more than 375,000, and are mostly Mohamadans. A large but decreasing section of these castes is made up of village servants who, for fixed payments in grain,

MANUFACTURES.

sugar cane-juice, or cotton, and fees on the occasion of marriages, make and repair the shoes, whips, thongs, plough-gear and head-stalls for cattle that are required by the members of the village community, and eke out their allowance by doing general agricultural and household work. The system of customary allowances, however, is fast giving way in villages to that of cash payments, which is universal in towns.

The village workers are thus losing their hereditary incomes, and it is unlikely that their rough products will be able to compete even locally with the finished work of large tanneries and factories such as those of Cawnpore. Besides the ordinary leather workers there are separate classes of makers of leather jars from camel skins, shagreen manufacturers, general tanners, tanners of goat and sheep skins, tanners of bulls' and buffalo hides, who also prepare gut for the strings of musical instruments, and wholesale hide and skin merchants. The import of hides and skins and the export of leather make up a foreign trade, chiefly with Kashmir and Kabul, of the total value in 1891–92 of nearly 7½ lakhs. The trade of the Punjab with the rest of India in hides, skins, and manufactured leather was of the total value in 1891–92 of 66½ lakhs. But, as each village has its own leather workers who procure their raw materials and manufacture on the spot, these figures give an inadequate idea of the activity of the industry.

The skins chiefly used are those of the buffalo, bull, sheep, goat, camel, and donkey. From the first two kinds is prepared leather for boots, saddles, harness, and less important manufactured articles, such as hookahs. From goatskin and sheepskin are made uppers for boots, box-covers, bellows, gaiters, bindings for books. Camel skin is used for jars, drums, and ropes, shagreen for the uppers of shoes and for bookbinding. Leather of a finer quality is made at Nurpur, and in very small quantities for upholstering at Gujrat. The ornamental leather-work of Bilaspur is used for waistbelts, inkstands, glove-boxes, cigar-cases, and horse trappings. Trunks and portmanteaus are the only other articles of European use produced.

Burma.

The large industries of Burma are 51 rice mills, 49 saw mills, and six cutch factories. Among the more important local and indigenous industries are boat-building, weaving, pottery, gold and silver work, wood-carving, cigar-making, *ngapi* or fish-curing, pottery, lacquer-work, brass-work, and marble-work. The boats plying on the Irrawaddy and other rivers sometimes are as large as 100 to 150 tons burden, while many thousands of smaller craft carry paddy and other goods on the creeks and rivers, pursue fishing along the coasts, and engage in coasting trade from Chittagong down to Penang. Weaving of cotton, silk, and embroidered goods is carried on by Burmese women in every town and village, and this domestic industry has, as yet, not succumbed to the competition of machine-made goods. The pottery of Burma, though not specially artistic, is yet strong and durable; and the great Pegu jars are much valued up and down the coast, as well as inland. The gold and silver work of Burma are much appreciated, not only by the people, who are much given to ornaments of this kind, but by European customers. Wood-carving is an art much cultivated, and is largely employed in the ornamentation of monasteries and private houses, most of which are built of wood, as well as in the adornment of the river craft. Cigar-making is carried on largely by women for home consumption and for export; most of the tobacco used in the Burmese cigars comes from continental India. The curing of salt fish and the making of fish paste meets a very large local demand, for nearly every Burman family that can afford it eats *ngapi* (fish-paste) with one or more meals daily; *ngapi* is given with the daily meal to prisoners in Burma jails; and the total production of salt fish, dried fish, and *ngapi* in Burma is believed to exceed half a million sterling in value. Lacquer-work is an important industry in Prome and Pagan; gums or oils from certain of the Burma forest trees are used in the manufacture, the basis of the lacquered articles being usually fine bamboo basket-work.

Central Provinces.

The large industries of the Central Provinces are five cotton mills, of which one was established in January 1892 and one in August 1892. They contain 876 looms and 87,944 spindles, and employ 5,348 persons, of whom 3,756 are adult males; the amount of cotton consumed in these mills during the year was 116,951 cwts. The usual domestic industries are practised in the Central

Central Provinces; but there has been of late years much decay of the embroidered and stout cotton cloth home industry, for which the Nagpur country used to be celebrated. MANUFACTURES.

The production of tea continues to be first industry of Assam; the area under tea plants increased to 247,192 acres, or 5,369 more than in the preceding year; the average out-turn of the year fell from 434 to 394 lbs. per acre by reason of the unfavourable season; but an advance of price more than made up for the short crop. The number of persons working on tea-gardens in Assam is returned at 830,735 permanently employed, and 115,760 temporarily, against 766,821 and 103,603 in the preceding year; the number of immigrant labourers under inspection according to the Assam Labour Act was, at the end of 1892, 461,647, of whom 56,050 immigrated during the year; the death-rate among immigrant labourers rose from 37 to 42 per mille during the year; the increase is attributed to epidemics of cholera and influenza and to the poor physique of the new immigrants who were unusually numerous. The relations between employers and labourers are said to have been "on the whole satisfactory." The land held direct from the State by time-expired immigrant labourers rose from 36,467 to 40,510 acres; the coolies also cultivate considerable areas with rice and vegetables within the limits of nearly all tea-gardens. Assam.

The only other important manufactures of Assam are fabrics of *muga* and *eri* silk; the spinning and weaving of these silks are cottage industries; the fabrics are largely worn and used by wealthy natives and by Europeans in Assam; the total production is said to be as large as in the best days of the native dynasties, while the price is fourfold what it was 50 years ago. From Sylhet shell bracelets and a perfume distilled from the sap of the agar-tree (*aquillaria agallocha*) are exported and are highly valued outside the province. The pottery, brass-work, silver-work, and cotton stuffs made in Assam are of no merit, and cannot compete with similar articles from other parts of India.

Weaving continues to be the most important domestic industry in Madras, though it is declining under the competition of machine-made goods. Eleven cotton mills in the Presidency worked up 263,000 cwts. of raw cotton; these mills, and one mill for weaving hempen bags, employed 9,600 hands. Eight minor weaving establishments were maintained on the east coast; and there were 42 cotton presses in the Presidency. Thirty coffee-curing works turned out Rx. 969,000 worth of cured coffee. The tanneries of Madras, Madura, Bellary and Vizagapatam continued to turn out large quantities of excellent leather, inferior to none in India except the best Cawnpore products. Factories at Madras and in Malabar sold Rx. 40,000 worth of tiles and cement. The cigar factories of the Godavari and the southern districts are reported to have made 55 millions of cigars, valued at Rx. 55,000. Indigo is made on a small scale and of inferior quality at some hundreds of vats, and was exported to the value of Rx. 1,144,000 against Rx. 445,169 in the previous year. Sugar was made on a large scale at one factory on the east coast, at which also considerable quantities of rum were distilled. Madras.

In the Bombay Presidency there were 253 steam factories at work at the end of 1892, of which 116 belonged to the city of Bombay; at these factories 118,000 hands were employed. The spinning and weaving mills were 96 in number, and turned out 320 million pounds of yarn and woven goods in the year. Besides the workshops belonging to the railways and the great steamship companies, 20 factories in Bombay turn out ironwork of all kinds, from railway girders to nails and nuts. Among other large factories using steam are four dye-works, which sold during the year Rx. 300,000 worth of coloured goods; two woollen-weaving mills and six wool-cleaning mills; cotton ginning and cleaning mills; four saw mills; five paper mills, one of which is large and successful; seven bone-crushing mills; three rice-cleaning mills; 27 flour mills, producing 220 million pounds of flour in the year; and 11 mills for pressing oil. Bombay.

Of the domestic industries and manufactures conducted after native methods, the chief are hand loom weaving and cotton spinning, which supply the hand-woven goods still worn by the majority of the lower classes; calico dyeing and printing, gold and silver lacemaking, the making of silk, and of garment pieces, partly of silk for women's wear, the weaving of cotton and woollen carpets; brocade work, and embroidery of gold and silver, for which Guzerat, Nasik, and Sind workmen are specially renowned; woodcarving, the art speciality of Guzerat;

MANUFACTURES.

Guzerat; and sculpture, which is practised in Cutch and Kathiawar; in these three provinces also silver work is done of a special kind and of much excellence. In all parts oil for domestic use, for soapmaking, for lubricating machinery, and for lamps is expressed by labour of cattle and men from castor-beans, sesame, rape-seed, poppy-seed, mhaura (or mhowa) nuts, linseed, ground-nuts, and cocoa-nuts. The local demand for vegetable oil is said in some places to have decreased in consequence of the extending use of petroleum, but the price of oil-seeds does not appear to have fallen.

Berar

The only large manufactory in Berar is the steam mill at Badnera, where yarn and cotton cloth are manufactured. It produced 995,862 lbs. of twist and yarn, against 999,683 lbs., and 912,217 lbs. of cloth, against 918,734 lbs., in the preceding year. The number of persons employed in this factory was 770, or 155 less than in the previous year. The steam cotton presses and the ginning factories are the most important industries in the province; and of these there were 86 at work during the year; the number of ginning factories increased from 48 to 58. The oil press, attached to one of the cotton presses at Amraoti, turned out 13,205 tons of oil and 1,143 tons of oil-cake, and that at Shegaon 77,059 gallons of oil and 706 tons of oil-cake. The domestic industries of Berar are the weaving of silk, cotton pieces with embroidered borders, cotton carpets, coarse cotton cloth and garment pieces, turbans and blankets; there was no marked change in the working of these crafts.

FACTORY ACT.

FACTORY ACT.

The new Indian Factory Act came into force on the 1st January 1892. The changes introduced into the law were, briefly:—

the law could be applied to establishments employing 20 hands or over, instead of only to those with 50 hands or over;

the minimum age for child labourers was raised from seven to nine years, and the maximum age from 12 to 14 years;

the maximum hours for child labour in any one day were reduced from nine hours to seven hours;

the hours of labour for women workers, which were unrestricted under the Indian Factory Act of 1881, were limited by the Act of 1891 to 11 hours a day;

hours of rest during labour were prescribed for all labourers, namely, half an hour in the middle of the day for all hands; and one hour interval for women workers.

The reports of factory inspectors show the number of factories inspected, and the results of the inspections to have been as follows:—

STATISTICS OF FACTORIES IN INDIA, INSPECTED UNDER THE FACTORY ACT DURING THE YEAR 1892.

PROVINCE.	Number of Factories liable to be inspected.	Number of Inspections in the year.	Average Number of Hands employed daily.				Factories where Weekly Holiday on		Number of Factories Working		Number of Persons convicted of breach of Act.	Number of Accidents Reported.			
			Men.	Women.	Children.	Total.	Sunday.	Other Days.	With Shifts.	Mid-day Stoppage.		Fatal.	Serious.	Minor.	Total.
Bengal - - -	150	373	94,985	15,774	9,248	120,007	95	4	72	72	4	7	171	160	338
N. W. Province and Oudh.	47	86	16,531	615	1,125	18,371	52	32	15	32	–	4	24	50	78
Punjab - - -	35	30	6,290	289	159	6,738	25	7	24	17	–	2	6	12	20
Burma - - -	106	339	20,335	588	213	21,136	10	4	46	60	–	1	10	4	15
Central Province -	16	24	6,217	1,232	772	8,221	7	7	6	9	1	1	11	44	56
Madras - - -	46	264	20,198	2,250	1,424	23,872	41	1	1	39	–	3	17	111	131
Bombay - - -	253	798	89,680	22,844	5,946	118,470	251		57	195	1	13	79	639	731
TOTAL - -	653	1,913	254,236	43,592	18,887	316,815	536		221	424	1	31	318	1,020	1,369

The largest number of factories is in the Bombay Presidency, and 119 are in Bombay city alone. It is said that the new Factory Act has been generally carried out with readiness everywhere; the restrictions on the employment of women and children, and the enforcement of the weekly holiday and midday stoppage, do not appear to have affected the factory industry adversely. Only one factory, the Bombay Gasworks, was exempted from the rule as to Sunday work. The usual holiday is Sunday, except in Khandesh, where the local market day is generally the holiday. Ventilation and fencing of machinery are said to be satisfactory everywhere. The sanitary conditions and surroundings of factories are improving. Most of the hands belong to the agricultural classes; and they pass to and fro between mill work and field work. Cotton presses usually work for a part of the year only. The intermittent character of factory work, as it now exists, contributes to keep the hands in good health. FACTORY ACT.

In Bengal, factories work by shifts more commonly than in Bombay. Generally speaking, the factories are lofty buildings, well lighted and well ventilated; the water supply and sanitary arrangements are generally good; the general health of the hands was found by the medical inspectors to be good, and from one district it was reported that factory operatives suffered less from small-pox and cholera than their neighbours. The large factories are more careful to obey the law and to act upon the Inspector's warnings than the small ones. Fencing of machinery is generally satisfactory. The ice factories, the jute presses, and other factories, to the number of 51 in all, were exempted from those provisions of the law which require a Sunday (or other) holiday in the week.

In Madras the new Act is said to have worked without friction, and not to have resulted in any general dismissal of women and children from employment. The sanitary arrangements and conditions of the factories were found to be generally satisfactory, and any sanitary improvements suggested by Inspectors were usually carried out at once by the managers. No exemption from the law requiring the Sunday (or other weekly) holiday was granted. In every case except one the Inspectors reported most favourably upon the physical condition of the operatives.

Thirteen of the factories in the North West Provinces were not inspected during the year. Two Government factories at Cawnpore and one sugar factory were exempted from the Sunday holiday law. The fencing of machinery is reported to be satisfactory, and serious accidents are due usually to gross carelessness on the part of the hands. The health of the children operatives is reported to be not so good as in Bengal, and the medical officers have been directed to direct special attention to this matter.

In Burma the defects brought to light by the Inspectors concerned mostly the fencing of machinery and sanitary improvements; such defects were promptly remedied on being pointed out by the Inspectors. The general health of the operatives was good, and no epidemic occurred among them during the year. Three factories were exempted from the Sunday holiday law, and orders were issued bringing under the Act some 40 more rice mills and saw mills that employed fewer than 50 hands apiece.

The factories in the Central Provinces were visited by the Bombay Inspector. The chief shortcoming found was lack of ventilation in factory buildings. In two Nimar factories the law regarding weekly holidays was transgressed. The general health of the operatives was good, and the child workers were found to be in good health and not suffering from the nature of their work. Defects in fencing machinery and mill gearing were promptly remedied when pointed out. Two factories were exempted from the Sunday holiday rule.

CHAPTER XV.

THE FRONTIERS AND PROTECTED STATES OF INDIA.

THE FRONTIERS AND PROTECTED STATES OF INDIA.

THE following notices for the year 1892–93 should be read in continuation of the corresponding paragraphs in the Decennial Report for 1891–92.

Excluding Afghanistan and Nipal, and also Kiangton and one or two other States subordinate to the Chief Commissioner of Burma, of which the area, population, and revenue are not estimated, the total area, population, and approximate revenue of the States dealt with in this section, may be stated at 793,000 square miles, 67,275,000, and Rx. 20,500,000 respectively.

Imperial Service Troops.

During the year the strength of the Imperial Service Troops was increased by the addition of two cavalry regiments, in the organisation of which considerable progress was made. The total strength of 18,500 is distributed over 60½ squadrons of cavalry, 13½ regiments of infantry, a camel corps, two companies of sappers' transport corps consisting of 600 carts and 1,500 ponies, and two mountain batteries. Their efficiency was thus described by Lord Roberts shortly before his departure from India: "During the past cold "weather," he said publicly in Jodhpur, "I have inspected the majority of "the Imperial Service Corps in the North of India. . . . I may say that their "present efficient condition exceeds my most sanguine expectations. The "troops are well dressed, well turned out, and, as regards the cavalry, as well "mounted as could be expected. The officers take a keen interest in their "work, and spare no pains to perfect themselves in their duty. The drill has "reached a higher standard than I believed to have been possible in the time. "The regiments have constantly been brigaded with our own troops during this "cold weather, and the officers under whom they have worked are unanimous "in their praises of the manner in which duty has been performed. The "discipline too has been admirable; I have not heard of a single case of crime; "the camps have been well pitched; sanitation has been invariably attended to, "while the men have throughout been animated by an excellent spirit. The "remarkable success which has attended the scheme under which either troops "or transport have been provided by the native States for the defence of India "must, in my opinion, be attributed to the loyalty and enthusiasm of the rulers of "the States in question. In no other way could such results have been attained."

Afghanistan.

A mission under Lord Roberts to Afghanistan was in contemplation in the year under review, but His Highness the Amir was unable to make arrangements for the meeting. The matters which it was intended to discuss and which have since been satisfactorily settled by Sir Henry Durand's Mission in the autumn of 1893, mainly concerned the frontiers and intervening tracts between the territories of the Governments of India and Afghanistan. A general uncertainty prevailed as to the limits of influence of the two governments, and the tribesmen constantly took advantage of this uncertainty, playing off the one against the other. In Chitral, apprehension of aggression under cover of Afghan protection stood in the way of any settled government. The people of Bajaur and Swat were in uncertainty whether they might not any day be exposed to an Afghan invasion. There was anarchy in Kurram, where the Turis were kept in fear by local disturbances fomented by Afghan officials and by raids carried on by Afghan subjects. And, south of Kurram, the whole Waziri tribe was in a state of ferment, and outrages were frequent in the Zhob and Gomal valleys. Altogether the situation was strained and disquieting during the year under review. By the recent arrangement with His Highness the Amir, the causes of this unrest on the frontier have disappeared. The actual terms of the settlement may be left to next year's report.

Baluchistan.

In Baluchistan the most important event in its consequences was the murder by His Highness Mir Khudadad Khan, then Khan of Kalat, of his Mustaufi, or Minister, Fakir Muhammad. This murder, which the political agent, on hearing of the Mustaufi's arrest, had tried in vain to prevent, was the culminating act of a long course of oppression. An investigation into the conduct of the Khan left no doubt of his guilt and of his frequent abuse of power from motives of cruelty and avarice. The chief Sardars of the Baluch confederacy, of which the Khan is head, joined in expressing their disgust at his conduct, and petitioned the British Government to replace him by his son,

Mir

Mir Mahmud Khan. The Khan himself tendered the resignation of the chiefship, and, in consideration of his loyalty in the past, the Government of India decided to be content with accepting his abdication, and investing Mir Mahmud Khan with the vacant chiefship. This decision was carried out in 1893-94. THE FRONTIERS AND PROTECTED STATES OF INDIA.

Another event of importance in the year's administration was the withdrawal from Mekran. In 1890-91, Sir Robert Sandeman, then Governor General's Agent, visited Southern Baluchistan, including Mekran and the Kej and Panjgur districts, and found the country in a state of almost complete anarchy; an officer and some troops were left on the spot, and efforts were made to secure a durable settlement among the rival parties and clans. These efforts met with only partial success, and the Government of India, being unwilling at the time to take upon itself the responsibility of the administration of this distant and poor country, decided to withdraw its troops and civil establishments. Fresh proposals for the administration of Mekran are now under consideration in consultation with the new Khan of Kalat.

Affairs in Mekran so engrossed the political agent of Southern Baluchistan that he could not properly attend to the duties of his charge in the direction of Sind, where the tribes were giving trouble. The political charge of the Las Beyla State was for this reason temporarily transferred to the political agent at Kalat. A severe epidemic of cholera occurred during the year, in which from 2,000 to 2,500 persons are estimated to have died in the Kej and Panjgur districts.

In the Zhob valley the action of the Afghan officials on the frontier caused some excitement, and serious offences by the Waziris were consequently numerous. Progress was made in the organisation of the Zhob levies.

An important financial reform was effected at the close of the year by the substitution of a single provincial contract between the Government of India and the Governor General's Agent in Baluchistan, for the four separate contracts previously in force; viz.:—(1) the special allotment of police and levies; (2) the Zhob revenues; (3) the Quetta revenues; and (4) the grant for the Zhob Levy Corps. There was a satisfactory increase of provincial revenues, which were approximately, in 1892-93, Rx. 59,077, as compared with Rx. 43,163 in 1890-91 and Rx. 54,220 in 1891-92.

Improvements have been effected in various departments; education is said to be making rapid strides; the annual horse-show at Sibi has proved a great success; the rapidity with which unreserved forests have disappeared has necessitated the extension of reserved areas for the maintenance of a supply of fuel and fodder in the province; a larger quantity of coal was obtained, and proposals were under consideration for the further exploitation of the coal fields of Baluchistan. The attempts to obtain a permanent and remunerative supply of petroleum have failed. Trade declined during the year.

On the Punjab border the principal event was the occupation of Kurram, which was undertaken with the assent, or rather at the suggestion, of the Amir. The Turis were replaced in possession of their lands from which they had been ejected by the freebooter Chikkai and his followers. Peace and order were established, a military cantonment laid out, and a local militia force, 850 strong, enlisted. In the Khaibar, trouble was caused by the rebellion of Amin Khan, the representative headman of the Kuki Khel Afridis. As a punishment his allowance was forfeited and fines were imposed on his tribe. On the Hazara border a small expedition was necessary to obtain the expulsion of Hashim Ali, the proscribed chief of the Khan Khel Hassanzai. There was no opposition, Hashim Ali fled, and the small hamlet of Baio, in which he had for the time established himself, was destroyed. Further north the Gilgit field force came into collision with the Chilasis; but on the Panjab frontier itself no actual fighting took place. On the whole, on both the Derajat and the Peshawar sections of the Punjab frontier, there were many signs of improvement in the behaviour of the tribes. This improvement is likely to continue and to extend, now that the settlement with the Amir has done away with the main causes of uncertainty and unrest. Punjab Frontier Tribes.

Reference has already been made to the collision at Chilas between the Gilgit field force and the insurgent Shinaki tribes. The opening of the Khagan route from the Hazara district, *viâ* the Babusar pass, to Chilas was decided upon and carried out after the close of 1892-93. Kashmir, and its

Beside the occupation of Chilas, the principal events of the year in Kashmir were the severe outbreak of cholera, of which nearly 12,000 persons died in the

THE FRONTIERS AND PROTECTED STATES OF INDIA.

valley between May and August, and the destruction by fire of one of the most thickly populated portions of the city of Soinagar. Considerable efforts were made by the State Council to remedy the consequent distress; the work of the medical department was particularly satisfactory. A scheme for providing the capital with a pure water supply was taken in hand during the year. The chief difficulty of Kashmir administration is financial. The expenditure of the year, Rx. 610,201, exceeded the revenue by Rx. 98,900, and the surplus treasury balances of the State were nearly exhausted. A very large proportion of the revenues is absorbed by the Military and Public Works Departments, in both of which more outlay is urgently required, *i.e.*, for completing the equipment of the troops, and for constructing necessary roads and buildings. The revenue administration was conducted with ability. Progress was made in the new settlement of land revenue, which is being carried out under the superintendence of a British officer. Arrears, mostly irrecoverable, amounting to Rx. 237,000, were remitted. The Government of India undertook the working of the telegraph lines, with the exception of one section; and bore three-fourths of the cost of provisioning the Gilgit Field Force. Some progress is reported in the matter of education; and the administration of the jails, and of the judicial and police department is described as having been fairly satisfactory.

Nipal, Sikkim, and Bhutan.

The affairs of Sikkim and the political relations with Nipal and Bhutan call for no special remark.

Manipur and Assam Border.

In Manipur, the minor, Chura Chand, who had been chosen to fill the chiefship was installed in April 1892, on which occasion the *sanad* of the Governor General was presented to him, declaring expressly that he derived his right from the Government of India, and that his retention of it depended on the loyal fulfilment of his duties as a tributary prince. The opportunity was used for abolishing slavery, and the *lalup* system, as it is called, under which the State exacted unpaid labour from its subjects. The place of this form of State-dues was taken by a house-tax at the annual rate of Rs. 2 per house; and a uniform rate of land revenue equal to Rs. 2 per acre was established. The revenue collections during the year amounted to Rx. 21,490, and the expenditure to Rx. 30,204, including Rx. 10,783 on account of arrears and current instalment of indemnity and tribute. There was considerable expenditure on public works, particularly on communications. The Assam—Burma cart-road was pushed on; the section as far as Kohima is expected to be open to traffic by May 1894. Trade is greatly expanding.

Along the external frontier of Assam the relations with the tribes were on the whole satisfactory, and undisturbed by any event requiring special notice. In the North Lushai Hills, however, some of the tribes rose and attacked a British force, but were repulsed. The chief villages of the assailants were occupied and destroyed by expeditions operating from Fort Aijal.

In January 1892 the question of transferring the South Lushai Hills from Bengal and portions of the Arakan Hill Tracts from Burma to the administration of Assam was under consideration, but it was decided to postpone the transfer for the present. Among the South Lushais, military expeditions were necessary in conjunction with the forces operating from Fort Aijal in North Lushailand. No serious resistance was encountered. Fines were inflicted, the taxes imposed were collected, and the policy of disarmament was more or less effectually carried out.

Chin Hills.

The Chin Hill tracts, which had been previously administered from Fort White and Haka, were in July 1892 brought under a single charge administered from Falam. In these tracts the work of the year was the suppression of the rebellion of the Nwengals and Siyins. Military operations on a considerable scale were required, during which the casualties in the British forces exceeded 70. They were, however, successful; most of the ringleaders of the rebellion were captured, and over 1,600 guns were surrendered. The Chin Hill tribes, excepting the Siyins, the Nwengals, and the Tlantlangs behaved well. A regular cash tribute was collected for the first time at the rate of one rupee per house, and amounted during the year to Rx. 1,200. The general policy of Government in the Chin Hills is thus described:—

(1.) To protect the plains of Burma from raids;

(2.) To interfere as little as possible with the customs of the people and their system of tribal government;

(3.) To prevent bloodshed and internal feuds;

(4.) To

(4.) To advise the chiefs and tribesmen, and to build up a sound primitive form of government; THE FRONTIERS AND PROTECTED STATES OF INDIA.

(5.) To punish severely all crime committed against Government servants and property;

(6.) To demand tribute from all the tribes as a token of their fealty to the British Government.

Among the Kachins of the North Eastern frontier military operations on a considerable scale were necessary. The work of previous seasons was extended. Police escorts were despatched in different directions, and posts were permanently established at Sima and Namkham. The opposition was of a serious nature, nor had it been finally crushed by the end of the year under review. West of the Irrawaddy and south of Kamaing the country may be considered as having been permanently pacified. East of the Irrawaddy, posts had before the end of the year been established at Namkham, Nampaung, Sima and Sadon, and the location of another post at Kwitu was in contemplation. With the help of these posts it was expected that order would be preserved. The question of the system of administration required for these Kachin tracts was still under consideration at the close of the year. It is proposed to administer them under a Regulation somewhat similar to the Punjab Frontier Crimes Regulation. The line of frontier between the British and Chinese spheres of influence in the Kachin country was under discussion during the whole year. Kachin Tribes, North East Frontier.

Other Kachin disturbances occurred during the year in 1892-93 in the Shan State of North Hsinwi (Thien-ni), where there was a conflict between the races of Kachins and Shans. The former are settling in the State in increased numbers, and have proved less submissive than the Shans to the oppressive rule of the chief. A widespread feeling of exasperation among the Kachin settlers culminated in a successful attack on Hsinwi town in December 1892. The revolt was directed solely against the Shan rulers of the country, and on the arrival of the Superintendent the malcontents laid down their arms when they had received an assurance that their grievances would be inquired into. In the rest of the Shan States peace prevailed, and there was a very satisfactory absence of dacoity and of serious crime. In Hsipaw and South Hsinwi among the Northern States considerable progress was made in the policy of disarmament and in the introduction of more civilised methods of government. The abolition of tolls in the Hsipaw State was also a satisfactory feature of the year's administration. In all the States much information was collected regarding their revenue-paying capacities. Their tributes were generally lightened with a view to leaving the chiefs in a better position to develop the resources of their States. There was a great expansion of trade during the year. Much of the time and attention of the Superintendent and Assistant Superintendent of the Southern Shan States during 1892-93 was occupied in the work of demarcating the frontier with Siam. This work was very satisfactorily completed. The Siamese occupation of the trans-Salween portion of Eastern Karenni was brought to an end in 1892, and an inquiry was held to estimate the losses sustained by Sawlawi, the chief of Eastern Karenni, owing to the Siamese occupation. The trans-Salween State of Kiangton was visited by the Superintendent of the Northern Shan States who helped the Sawbwa and his ministers with advice in various matters; he was also able to obtain information as to the resources of the State. Burma Shan States.

INTERNAL STATES.

The suppression of dacoity in the Native States is often a matter of Imperial concern, and necessitates interference on the part of the paramount power, particularly in those tracts of Native States territory where the jurisdiction of the chiefs is much intermingled, and where the dacoits have, therefore, great advantages in organising their crimes with comparative impunity. For the State of Hyderabad, and the large Agencies of Central India and Rajputana, there has long existed a special department under the Government of India charged with the duty of suppressing thuggee and dacoity. The former crime has been almost stamped out; dacoity, however, prevails, and in the last few years has shown a tendency to increase both in the States referred to and in Kathiawar. The Thuggee and Dacoity Department records 564 cases of dacoity in 1892, as compared with 539 in the previous year, the increase occurring wholly in Central India, where also the value of property stolen per case was very INTERNAL STATES. Dacoity.

INTERNAL STATES. very much larger. The increase of lawlessness was so serious that special measures had to be taken to deal with it. A special police force and a detachment of the Bhopal battalion were deputed to Bundelkhand, and the whole operations were placed under a selected police officer from the Central Provinces. The operations were entirely successful, and Bundelkhand was freed from dacoits. This result was, however, achieved after the close of the period to which the present Statement relates. One fact which was made evident by these operations was that several important Jaghirdars, and, in some instances, ruling powers in Central India had been in the habit of countenancing and harbouring dacoits. Two other measures may be mentioned in connection with this subject, though neither was completed in 1892-93. One was an amendment of the law of British India, to make it a criminal offence to harbour dacoits whose operations were carried on in Native States territory; the other was the re-organisation of the Thuggee and Dacoity Department, with the object of removing the friction that too frequently arose between the officials of the department and political officers in the Native States. In the new scheme, which in regard to Central India and Rajputana has been brought into force since the close of 1892-93, care has been taken not to impair the authority of the Durbars in respect to the suppression of ordinary crime within their respective States, and to uphold the position and powers of the political officers.

Hyderabad. It was not only in the States within the scope of the Thuggee and Dacoity Department that dacoity was seriously prevalent in 1892–93. The Province of Kathiawar was disturbed by the numerous outrages of a gang of outlaws from the Malia State. The police of the Native States proved incompetent to cope with these men without European direction and superintendence. Strong measures had to be taken. The Malia State, the headquarters of the gang, was attached and placed under a European officer; the Agency police was strengthened, and the police of several Native States placed under European superintendents. The gang was finally attacked and killed to a man, but at the cost of the lives of Lieutenant Gordon and two of his men. It is anticipated that this success will greatly reduce the number of dacoities in Kathiawar.

There is little precise information regarding the administration of Hyderabad in 1892–93. There were changes in the *personnel* of the higher officers both in 1892–93 and in the succeeding year, of which the most important was the succession of Nawab Vikar-ul-Umra as Prime Minister in place of Sir Asman Jah. An abstract report of the latter's administration between the Fasli years 1297 and 1300, *i.e.* 1887–88 to 1890–91, has recently been issued. The total revenue is stated therein to have amounted during the four years to Rx. 14,033,926 and the expenditure to Rx. 13,578,020. The yearly surplus would thus be nearly seven lakhs. The figures show a considerable improvement as compared with those of the four preceding years. It is noticed that land revenue is collected with extreme punctuality and ease, and that the peasantry are contented and prosperous. Survey and Revenue settlement are progressing, 66 out of 117 talukas having been assessed and settled; the system adopted in the State is, with some modifications, the same as that which prevails in the Bombay Presidency. Reforms of considerable importance in various departments are alluded to in the report. To improve the judicial administration, the pay of the judges of the Chief Court and of the District Courts was raised. A draft of a Penal Code for the Nizam's dominions was prepared, and several useful enactments were passed. The jail administration was much improved. The police were brought under better discipline, their duties were more clearly defined, and the pay of the officers was increased. The village police were also brought under the supervision and control of the Inspector General of Police. A new mint was almost completed at the end of the period dealt with in the report. It is much needed for the improvement of the Hyderabad coinage. An enormous increase in the number of schools and children under instruction shows the advance in education that was made during Sir Asman Jah's administration.

The total revenue of the Hyderabad Assigned Districts (Berar) in 1892–93 amounted to Rx. 985,548, compared with Rx. 1,027,632 in the previous year. Part of the decrease, representing land revenue collections postponed till the following year, was nominal, the remainder was due to diminution in the excise and forest receipts. In provincial disbursements there was a slight decrease from Rx. 909,202 to Rx. 907,992, the decrease in military expenditure alone amounting to Rx. 16,827. The surplus of revenue over expenditure was only

only Rx. 77,456, which is less than the surplus of any year since 1871–72, excepting 1878–79 only. There was actually paid to the Nizam in 1892–93 on account of accrued surplus a sum of Rx. 83,104, making a total of Rx. 3,058,822 paid over on this account since the cession of Berar in 1852–53. INTERNAL STATES.

In Mysore, the year 1892-93 was one of exceptional prosperity. From a statement published on the authority of the Dewan or minister it appears that the revenue was Rx. 1,700,000, or Rx. 265,000 more than in 1891–92. The chief items of increase were Rx. 166,000 from land, and Rx. 105,000 from excise. The increase of excise receipts, 50 per cent. as compared with 1891–92, is attributed to the abolition of intermediary agents in the administration. In seven years the excise revenue has increased 260 per cent. The expenditure of the year is shown at Rx. 1,623,000, but of this Rx. 230,000 represent repayment of loans, investments in Government securities, and capital outlay on railways, and the remainder includes Rx. 290,000 expended on public works. The extension of roads and railways, together with post and telegraph facilities, has led to a great development of trade and an expansion of agriculture. Gold mining is also yielding larger profits. The output of the gold mines in 1892 exceeded 163,000 ounces, valued at nearly a crore of rupees; the royalty paid to the State in the financial year was more than 5 lakhs. An extension of the railway system to the Kolar Goldfields, almost completed by the close of 1893, is likely to add to the prosperity of the mines. Progress is recorded in municipal affairs; the work of the Municipalities and Local Fund Boards is said to have been generally well done, and increased attention is said to have been paid to improving the condition and sanitation of towns and villages. The Representative Assembly of the State, which is the only institution of the kind in India, held its twelfth annual meeting in 1892, and is said to have discussed over 600 subjects during the five days of its session. The representatives present at the Assembly numbered 303, of whom five were Europeans, 16 were Mussalmans, and 282 Hindus. Mysore.

No Administration Report of the Baroda State has been issued since that for the year ending July 1888. The Gaekwar was absent from his State during the greater part of 1892–93; his absence, which has been frequent in recent years, is the cause of some difficulties and delays in the administration. Considerable agitation has been caused in the State by the operations of the Alienation Department, which was intended to secure for the State its proper revenue from lands which had been fraudulently or irregularly appropriated by individuals. Much has been done by the State for education; the number of schools is given at 1,105, with 73,900 scholars. A system of compulsory education is under contemplation. No information can be given in regard to the financial or other departments of the Administration. Baroda.

The following is a Table of the Rajputana States, with their revenues, viz.:— Rajputana.

State.	Area in Square Miles.	Population in 1891.	Estimated Revenue.	
			1891–92.	1892–93.
			Rx.	Rx.
Udaipur (Mewar)	12,861	1,862,478	259,630	375,000
Dungarpur	1,440	165,400	17,640	14,567
Banswara, &c.	1,937	212,269	20,400	25,988
Pratapgarh	959	87,975	19,240	26,764
Jaipur	15,349	2,832,276	619,130	619,007
Kishangarh	874	125,516	34,590	35,748
Lawa	19	3,360	1,280	450
Jodhpur (Marwar)	37,445	2,521,727	430,000	415,700
Jessalmer	16,039	115,701	15,600	15,870
Sirohi	1,966	188,977	25,800	17,500
Bikaner	23,090	831,955	199,770	180,000
Bundi	2,225	295,675	68,190	80,000
Tonk	1,415*	198,934*	153,900	120,000
Shahpura	406	63,646	28,600	28,900
Bharatpur	1,961	640,303	271,790	271,350
Dholpur	1,156	279,890	95,900	92,534
Karauli	1,229	156,587	52,650	47,773
Alwar, &c.	3,051	767,786	282,020	266,879
Kotah	3,803	526,267	235,280	240,000
Jhalawar	3,043	343,601	151,460	150,000
Total	130,268	12,220,348	2,982,870	3,023,030

* Excluding the Tonk pergunnas in Central India.

INTERNAL STATES. In Alwar the year was particularly eventful. A special court was instituted for the trial of the murderers of Kunj Behari Lal, a member of the State Council. This was followed by the death of the Maharaja, under whose authority the accused tried to shield themselves from the crime. The plea was, however, disallowed, and sentence was executed on the murderers. Jey Singh, the son of the late Maharaja, succeeded to the throne. During his minority the administration is being conducted by the Alwar Council under the general guidance of the political agent. The finances of the State are in good order, there being a balance of 59 lakhs in the treasury and a yearly surplus of two lakhs.

In December 1892 Maharao Oomeid Singh, of Kotah, was installed, though, owing to his inexperience, certain departments of the administration were retained temporarily under the Political Agent's superintendence. The State had been under British management since February 1874. At that date the treasury contained only Rx. 152 in cash, while the claims against the Durbar amounted to Rx. 895,194. Inquiry reduced these debts to Rx. 464,312, all of which have been paid; and the cash balance in the State Treasury on 31 March 1893 was Rx. 153,911. During the period of management nearly 46 lakhs had been spent on the public works department.

The Maharaj Rana of Jhallawar, who had been deprived of his ruling powers a few years ago, was, towards the end of 1892, re-invested with governing powers in all departments except in matters of revenue, which are under the control of the State Council. Rules have been framed, under which, it is hoped, that this dual control will work successfully.

The affairs of Banswara continue to give anxiety. In Udaipur (Meywar) irregularities in the collection of revenue and the administration of justice were discovered which proved the need for the appointment of responsible ministers of capacity and integrity.

Revenue settlement, mostly under the superintendence of British officers, is being carried out in several states. In Tonk and in Dholpur the settlement operations were completed in the year under review. In Udaipur these were expected to be finished in the succeeding year. They have been started in Bikaner, and are expected to begin shortly in Jodhpur (Marwar).

The scarcity which marked the years 1890-91 and 1891-92 in Rajputana passed away in the year under review. But prices remained high, although the harvests generally were favourable.

The amount spent on public works by the States of Rajputana in 1892-93 was Rx. 426,000, of which Rx. 180,000 were expended in Jodhpur, Rx. 109,000 in Jaipur, Rx. 53,000 in Alwar, Rx. 44,000 in Kotah, and Rx. 22,000 in Udaipur. The expenditure in Jodhpur is chiefly on railways.

The Walter-krit Sabha, which is an association with the object of restraining excessive expenditure on marriages and funerals, continued to work beneficially. The number of breaches of the regulations in 1892 was considerably less than in the previous year. It is reported that castes other than Rajputs are beginning to realise the importance of rules of this kind.

Of the so-called criminal tribes, the Meenas and Bhils were more than usually troublesome, but the Moghias are said to have behaved well on the whole. Arrangements are being made for the better supervision of the Moghias in times of scarcity, when they are disposed to desert their settlements *en masse*.

Praiseworthy efforts are being made in many of the Rajputana states for the encouragement of education. The proportion (one out of 11) of boys under instruction in Jaipur is particularly creditable. Female education is also making way in Jaipur and in Alwar, but of the other states this cannot be said. A satisfactory report is given of the Mayo College.

Increased attention is being paid to sanitation. Suitable drainage or sewage schemes have been adopted in several of the chief towns. In Alwar rules have also been made for village sanitation. The number of dispensaries and the work performed by them increase satisfactorily year by year.

Central India. The subject of dacoity, which is the topic of chief interest in the Central India Agency Report for 1892-93, has already been dealt with, but it may here be said that some of the chiefs in this agency, particularly in Bundelkhand, have not been without blame in the matter. The Rao of Alipura has been allowing dacoits to shelter in his territory, and has given grounds for suspicion even as to his loyalty. The territories of Datia and Ajaigarh have also been used as shelter by the dacoits, and in Bijawar the Durbar has hardly been strong

strong enough to control the Thakors who abetted dacoity. But in all these States a considerable change for the better has been effected. INTERNAL STATES.

The administration of Gwalior has been conducted satisfactorily and without friction. Its financial position is very strong. Besides investments, including 3½ crores lent to the Government of India, there was in June 1892 a State balance of Rx. 4,885,000. The receipts of the year were Rx. 1,419,000. The expenditure, Rx. 1,347,000, was larger than that of the previous year by nearly 24 lakhs in consequence of the marriage of the Maharaja and his sister. Much useful work has been done in the Public Works Department. Considerable progress has been made with the Goona-Bina railway, and the Bhopal-Ujjain line has been commenced. A number of feeder roads have been, or are being, constructed. The memorial hospital and college at Laskar are nearly completed, and four other new hospitals are under construction. Settlement operations were conducted in certain districts; but the procedure was found to be not wholly suitable and the Council of Regency decided to postpone the work of settlement. Meanwhile steps were taken to push on the survey, and to train and organise the patwaris (village accountants), and through them to obtain the papers and statistics necessary for making an assessment. The whole of the work was placed under the superintendence of a European officer. The judicial courts are said to have worked well, except for a tendency to deal too leniently with grave offences, such as dacoity.

In Indore the administration is considered to have been generally satisfactory. The Maharaja has continued to pay close attention to the Revenue Department. In the northern districts of his State, which he inspected during the year, he found the assessments to be too high and ordered them to be reduced. The total revenue of the year is given at Rx. 637,000, and the expenditure at Rx. 617,000. The State was comparatively free from violent crimes, and the administration of justice was satisfactory. There was no change in the office of Dewan.

The State of Bhopal, in which the office of minister continues to be held by Munshi Imtyaz Ali, was well administered. The prevalence of dacoity much disturbed the State, but the measures adopted since the close of the year may be expected to restore order. The educational and medical institutions are doing good work.

In the other States the more important events were the following. The Rajas of Rutlam and Dewas State, Junior Branch, died during the year. The former was a wise and able ruler, considerate, and popular with all classes of his subjects, and much respected by neighbouring princes. His son who succeeds is a minor. The administration, in which no changes of importance were required, unless the introduction of the budget system be considered an important change, was continued under the late Raja's Minister, Khan Bahadur Shahmut Ali, C.S.I., subject to the Political Agent's supervision. The Dewas State, Junior Branch, on the Raja's death, was taken under superintendence during the new Raja's minority. The annual income of the State is a little over 3½ lakhs, and exceeds the expenditure. The State, moreover, holds a considerable sum invested in Government securities. The Maharaja of Dhar, who had only partially recovered from a stroke of paralysis, was absent from the State during the year. The administration consequently suffered. The Governor General's Agent reports very unfavourably on the rule of the Chiefs of Sailana, Sitamau, and Nagode on account of their incompetence and unwillingness to accept good advice. The financial condition of Jhabua continues to cause anxiety, but the management of the State is not wanting in ability. The affairs of Jaora are improving, as its debt is being cleared off. The Thakur of Jakhnaoda's management of the Ali Rajpur State, of which the Rana is a minor, is satisfactory, and the financial position of the State is improving. The Maharaja of Rewah is nearly old enough to begin to undertake the administration of the State. With a view to the coming change, extended powers were conferred on the State Council. The finances of the State are in a good condition. The year closed with a surplus of 3 lakhs, and a total balance in hand of 15½ lakhs.

Detailed information is wanting in regard to the principal States subordinate to the Punjab Government. The largest State, Patiala, of which the Maharaja has been in power for three years, is beginning to give cause for anxiety. His Highness has been much absent from his State, his recent marriage has been regarded with disfavour by neighbouring chiefs, and the financial position has Punjab.

INTERNAL STATES.

been made critical owing to reckless expenditure. The establishment of a High Court in the State is a reform deserving of notice.

The only fact reported of Bahawalpur is that the Nawab imposed temporary export duties on grain in order to check the large exports from the State. In Jind considerable excitement was caused by a case arising out of the slaughter of kine. The killing of kine being illegal in the State, severe penalties were inflicted on certain persons who had been found guilty of a breach of the law. The conduct of the Raja of Suket continues to be unsatisfactory. A European officer has been appointed to act as Councillor in the State, and an officer of the Punjab Revenue Establishment has been appointed as the Raja's Wazir or Minister. Improvement in the administration is hoped for. The Mandi State was troubled during the year by an agitation against the Wazir. At one time also there were apprehensions of famine, to meet which advances were freely made to agriculturists, and relief works started. Of the other States, Chamba and Nahan (Sirmur) are praised for the energy and efficiency of their administration.

One other feature of the year's administration which may be mentioned is, that the more important States on the Sutlej have been invited to co-operate systematically with the British authorities for the purpose of checking crime on their borders, and considerable improvement is hoped for from the measures which have been adopted with this object.

North-West Provinces.

The Government of the North-West Provinces has expressed itself satisfied with the Raja of Tehri's aims, and with his administration during 1892-93, the first year of his rule. The finances of the State, with an income of Rx. 22,665, expenditure of Rx. 16,613, and a closing balance of Rx. 64,377, are in good condition. The Raja has been advised to increase the expenditure on roads, schools, and hospitals, but his object for the time seems to be to reduce his expenditure and increase the surplus which he can lay by.

In Rampur also the financial position is sound. About 25 lakhs were spent out of an income of 30 lakhs in the year. The affairs of the State are, during the Nawab's minority, under a Council, of which the president is a British officer. Considerable advances have been made in most departments; the army has been reformed; the judicial administration has been improved in character and efficiency, and a general sense of security established. The department now most in need of reform is that of the police, who wholly failed to deal with serious and organised crime. Measures were being taken at the close of the year for the improvement of the pay and discipline, and therefore of the efficiency, of the force. There was a dangerous outbreak in the jail during the year, for which severe punishments were passed on the ringleaders. The education of the Nawab progresses satisfactorily. A large portion of the State balance is to be devoted to the construction of the section of the Bareilly-Rampur-Moradabad Railway, which is in Rampur territory. The line was approaching completion at the end of 1893.

Bengal.

The Maharaja of Hill Tipperah in 1892–93 abolished the post of Minister, and formed an administration consisting of two of his sons and six of his Thakors, or principal subjects. The management of his estates in British territory was placed in the hands of a retired Indian civilian. The chief sources of revenue are taxes on forest produce and on cotton and oil seeds; the former showed a satisfactory increase. The total income of the State exceeded Rx. 61,000. During the two years of the late Minister's administration the State debts were reduced from 10 to 5 lakhs. In the year under review, Rx. 13,000 were paid off.

With the approval of Government, the Maharaja of Kuch Bihar appointed a retired Indian civilian to be the Vice-President of the State Council and Superintendent of the State, in place of the British officer who had previously held these offices The revenue of the State in 1892–93 was Rx. 207,000, and the expenditure Rx. 198,000, including a lakh of rupees as the first instalment on the repayment to Government of the loan of eight lakhs granted for the construction of the State Railway. This line was opened for traffic in September 1893.

The Chota Nagpur and Orissa Tributary Mahals continue to be in a very backward condition. There were not many marked signs of progress during the year under review, except in the matter of communications. The harvest in the Orissa Mahals was favourable, but that in the Chota Nagpur States was below the average. The year was generally uneventful. But in Keonjhur disturbances prevailed. The Bhuyans continued in their refusal to submit themselves to the Rajah, notwithstanding the punitive operations of a detachment

ment of Government police. The conduct of the Chief of Athgarh was not satisfactory. The Government estate of Porahat, which used to be included in the Chota Nagpur group of Native States, was by an Act of February 1893 annexed to the Singhbum district of the Chota Nagpur division. INTERNAL STATES.

The people of the Feudatory States in the Central Provinces are reported to be, in general, contented. Their standard of comfort has risen with the rise of agricultural prices, which the railway and the development of trade have brought. There remain large tracts of fertile land still uncultivated, and there is much room for improvement in the system of agriculture. Of the 15 Feudatory States, eight are temporarily managed by Government. The management of Kanker was taken over by Government during the year, but that of Sakti was restored, subject to certain restrictions, to its Chief. The State which gave most trouble was Chhuikhadan, where an empty treasury, unpaid public servants, and general financial disorder brought matters to a crisis. The Chief was compelled to abandon his obstructive attitude, and to give his Dewan fuller powers, with permission to carry out the reforms recommended by the Political Agent. The most progressive of the States managed by their own rulers are said to be the Bamra and Nandgaon. In the former, however, there are complaints of excessive assessments, harsh forest rules, and the oppressive exaction of forced labour, and of benevolences on the occasion of marriages in the Chief's family, which, it may be added, includes 16 sons and daughters. Revenue settlement operations were in progress in almost all the States; much was done to increase the efficiency of the police; education made some progress; and the popularity of dispensaries increased steadily. The year, however, was not a healthy one. The crops were generally good. Central Provinces.

The principal State subordinate to the Madras Government is Travancore. It continues to show steady progress. Its revenue for the Malayalam year, August 1891 to August 1892, exceeded 84 lakhs, an increase of 4½ lakhs over the income of the previous year. The Durbar is, with the approval of Government, setting itself to apply a portion of its accumulated balance of over 70 lakhs to reproductive and useful schemes of public works. The State enjoys a considerable trade; in 1891–92 its imports and exports together were valued at 195½ lakhs. The Legislative Council of Travancore was reconstituted during the year on a more representative basis. In the course of the year it enacted five Regulations, of which the chief revised the laws relating to the High Court, and dealt with the acquisition of lands for public purposes, and with criminal procedure. The administration has a tendency to follow in the lines laid down in British India. The figures illustrating education showed a decline in the year under report, as compared with the previous year, in which there had been an abnormal increase. But in matters of education it must be remembered that Travancore holds a more advanced position than other Native States, or than British India. At the close of the year the Dewan Rama Rao retired from his office, and the Government of Madras recorded its congratulations to His Highness the Maharaja on the steady improvement which, under his auspices, had been observable in almost all departments of the State. Madras.

In Cochin, the year is said to have been one of progress in several respects, especially in regard to education, the post office, the administration of civil justice and of the medical department, and to some extent in regard to jails. The year under review was the last of the administration of the Dewan, C. Thiruvencata Chariyar. The new Dewan, V. Subramanya Pillai, is said to have entered upon his duties with a determination to improve all branches of the administration. Improvement is specially needed in the collection of revenues in the Salt, Abkari, and Forest Departments. The income of the State amounted to 17½ lakhs. This is a falling off from the figure of the previous year. But the general financial position should give no cause for anxiety, as the expenditure was less than the revenue, and the year closed with a State balance of nearly 44½ lakhs. Of the other States in the Presidency nothing need be reported, except that the Raja of Sandur died during the year. His infant son was recognised as the successor, and the late Raja's brother was appointed to manage the affairs of the State during the minority. Pudukota continues under British administration.

But for the outbreak of dacoity in Kathiawar, which has already been dealt with in this chapter, the year was one of unbroken peace and prosperity for the three or four hundred States subject to the political control of the Governor of Bombay. Bombay.

INTERNAL STATES.

Bombay. Except in Kolhapur the harvests were generally fair; but the public health in the Gujarat States, and in those in the Southern Mahratta country, suffered from epidemics of cholera and fever. Crime, particularly serious crime, decreased in a marked degree; trade, aided by the abolition of vexatious imposts, and by the improved communications provided by enlightened rulers, continued to expand. It need not, perhaps, be wondered at that civil litigation is at the same time rapidly increasing. Of the Bombay Native States, one only, Khairpur, stands outside the current of administrative progress. The rulers of the rest are more and more assimilating their systems of government to that prevailing in British India.

The chronic disputes between Cutch and the States of Morvi and Navanagar on the opposite side of the Runn, reached a crisis during the year under review, and it was decided to take under temporary British management the villages and rights possessed by the Kathiawar States in Cutch, and by the Cutch State in Kathiawar, the object being to effect an accurate valuation of these properties, which is to be followed by a complete permanent separation of the interests of the States concerned.

The troubled condition of Kathiawar made it necessary for the Bombay Government to attach the State of Malia, the Chief of which had failed to control the turbulent tribe of Meenas, and had allowed his territory to become a nest of disorder, and the home of the outlaws who were ravaging the province. Moreover, the debts of the State exceeded five lakhs, or five times the income of the taluka. In Junagadh a Commission was appointed to inquire into, and effect a settlement of, some long-standing differences between the Nawab's Hindu and Mohammedan subjects. Unfortunately, before steps had been taken to carry out the recommendations of the Commission, the animosity between the parties broke out in serious fighting during the Mohurrum festival. This incident, however, belongs to the Report for 1893–94.

The most important States under British administration during 1892–93 were Porbandar, Rajpipla, Cambay, and Savantvadi. In the three former the work of reform was pushed on; in Savantvadi, which has long been under administration, there was less occasion for reform, but satisfactory progress on existing lines, especially in the matter of education, was recorded. Its chief town was benefited during the year by the completion of its new waterworks.

The following observations may be made regarding the more important States.

For Cutch, the year was not prosperous. There was a decline in trade, in revenue, in State expenditure on public works, and in the number of children under instruction; at the same time, the public health suffered, and crime increased.

In the Palanpur Superintendency the commencement of the Palanpur-Deesa Railway is to be noticed. The finances of both Palanpur and Radhanpur were satisfactory, and considerable sums were spent on public works. The abolition of *vev* or forced labour in Palanpur, and of import duties in Radhanpur, reflects credit on the Chiefs. Education is backward, and progress slow. The Agency police were reorganised during the year.

In the Mahikantha Agency, the Chiefs of Pol, Varsoda, Pethapur and Vasna, obtained their majority, and were entrusted with the management of their States; 18 others remained under management. Idar is the only important State in the Agency, and of the progress of this State little information can be furnished.

In Kathiawar the railway system profited by the development of trade, and gave more satisfactory returns on its capital outlay. The extension from Jetalsar to Rajkot was opened to traffic during the year, and arrangements were being made for a further extension to Jamnagar and to Jodia, the port of Navanagar. The Nawab of Junagadh, Sir Bahadur Khanji, G.C.I.E., died during the year, and his brother, Rasal Khanji, was recognised as his successor. The State Council of Bhavnagar appears to have worked satisfactorily. The income of the State increased by four lakhs. The continued absence of the Thakor Saheb of Gondal, who has been away from his State for two and a half out of the last three years, is considered an unsatisfactory feature of the year's report. A change of some importance was made in the matter of education. Hitherto the control and management of all educational institutions in Kathiawar, which may be said to have had their beginning in 1865, had been entrusted to a Government educational inspector. In 1892–93 it was decided to transfer, on certain general conditions, the control of these schools to such of the States as, in the opinion of the Political Agent, were, owing to the character of their administration, fit to undertake the control, and were willing to exercise it. These

States

States were Junagadh, Bhavnagar, Porbandar, Morvi, Vankaner, Palitana, Rajkot, and Wadwan. The number of educational institutions in Kathiawar increased during the year from 939 to 998, and that of scholars from 59,804 to 60,957. INTERNAL STATES.

In Cambay the work of reform made good progress. The new survey settlement was introduced and was received with general favour. Arrears of land revenue were collected without difficulty, notwithstanding a harvest that was below the average. State liabilities were liquidated to the amount of 1½ lakhs. The courts worked satisfactorily, and there was less crime. Public works of importance were under construction; and there was a satisfactory increase in the number of schools and scholars. It was anticipated that it would be possible to re-invest the Nawab with full powers of government during the year 1893-94.

In the Rewa Kantha Agency the chief feature was the satisfactory administration of the Rajpipla State under a British officer. The financial position of the State is very strong. The management of the State forests is receiving careful attention. What is now most required is the establishment of a higher standard of magisterial and police administration.

In the South Konkan the Nawab of Janjira continues to earn the highest praises of Government by his successful and enlightened administration. The capital of this State, as well as that of Savantvadi, was benefited during 1892-93 by the completion of an important scheme for the supply of pure water.

A Council of Regency, under the supervision of the Political Agent, is successfully conducting the affairs of Kolhapur during the minority of the Chief. The season was not favourable to the cultivators. Notwithstanding, the horse and cattle show held at Chingli during the year was a great success. An advance is reported in educational matters; but there was some falling-off in revenue. It was possible, nevertheless, to spend 5¼ lakhs on public works.

Jath and Daphlapur were during 1892-93 added to the number of States under the supervision of the Political Agent of Kolhapur and the Southern Mahratta Country. Jath, which is now under management during a minority, no longer causes anxiety, and the report on the Karundvad Senior State indicates improvement. Generally speaking, the administration of these States is favourably described.

TRANSMARINE DEPENDENCIES AND INTERESTS.

TRANSMARINE DEPENDENCIES AND INTERESTS.

Aden.

The relations of the Aden Residency with the neighbouring Arab tribes were generally friendly. Some sections of the Subaihi and of the Lower Aulaki tribes, however, gave trouble by their raids. It is noticed that the number of ships visiting Aden and Perim fell off, and was, indeed, lower than in any year of the last decade. But it must be remembered that the size of the ships is yearly increasing. The trade of the port was larger than in any previous year, and reached the total value of Rx. 8,175,500, of which Rx. 4,474,300 represented imports. While there was some improvement in the health of the general population in Aden, that of the troops, which suffered in 1891-92, was still worse in 1892-93. There has been an enormous and progressive growth of admissions of patients suffering from ague during the last four years. All the hospitals were more largely resorted to than in the previous year.

Somali Coast.

In the British Protectorate on the Somali Coast the year was not one of prosperity. There was an epidemic of cholera at Zaila and at Bulhar; the latter place was also destroyed by fire. The peace of the interior was disturbed not only by feuds between the Somalis, but also by raids of the Abyssinians on the Ogaden tribe. The progress of the trade of the Protectorate is thus described: that at Berbera increased largely; the Bulhar trade declined slightly; and at Zaila there was a very large decrease. The net variation was an increase to the extent of seven lakhs. The revenue of the Protectorate rose to nearly Rx. 22,000, which fell short of the expenditure by about Rx. 7,000, a sum nearly equal to the expenditure on public works, chiefly for police and military quarters and Residency buildings, during the year. The limits of British influence in the interior have not yet been defined.

Muscat and Persian Gulf.

The reports of the Political Officers who have the supervision of British Indian interests in Muscat and on the Persian Gulf Coasts describe the year as one more than usually disturbed, except in Oman itself, the political affairs of which were markedly quiet. There was an increase of piracy; there were disputes between the Turkish authorities at El Katif and the Chief of Bahrein, and apprehensions lest the former should seek to enforce their pretensions on that island. Serious fighting also took place between the Wali of Bussorah and

TRASMARINE INTERESTS.

the insubordinate tribes of the El Katr peninsula. In Persian territory the severe rule of the Governor of Bushire led to a rising of the Baharloo tribe, which for a time closed the trade routes and spread the greatest alarm in the naighbourhood of Bushire. There were other feuds, also, in this neighbourhood and in Persian Baluchistan; and the prosperity of the country was further disturbed by an epidemic of cholera. Some cases of the importation of slaves into Persia were reported, but no slave dhows were captured by British vessels. There was a serious decline in the trade of the ports of Southern Persia in 1892. The aggregate of the trade of Bushire, Shiraz, Lingah, Bunder Abbas, Bahrein, and the ports on the Arab coast, was valued at 460¼ lakhs for exports and 589 lakhs for imports. In Muscat the value of the exports was 1,055,000 dollars, and of the imports 1,982,000 dollars.

ARMY.

ARMY.

The sanctioned establishment for 1892–93 was as follows:—

British Troops		73,032	
Miscellaneous Officers		999	
Native Troops	Bengal	83,905	
	Madras	32,102	
	Bombay	28,748	
			144,755
Total			218,786
Corresponding Total for 1891–92			218,244

The actual strength of the Army on the 1st April 1893 was as follows:—

BENGAL.			
British.			
Cavalry (5 regiments)	3,289		
Artillery (52 batteries)	7,411		
Engineers	38		
Infantry (33 regiments)	34,265		
		45,003	
Native.			
Cavalry (24 regiments)	14,973		
Artillery (7 batteries)	1,554		
Sappers and Miners (8 companies)	1,320		
Infantry, including Punjab Frontier Force (64 regiments).	59,196		
Other corps, including Hyderabad Contingent.	13,768		
		90,811	
MADRAS.			135,814
British.			
Cavalry (2 regiments)	1,376		
Artillery (15 batteries)	2,197		
Engineers	69		
Infantry (10 regiments)	9,803		
		13,445	
Native.			
Cavalry (3 regiments)	1,851		
Sappers and Miners	1,474		
Infantry (32 regiments)	25,613		
Other corps	4,559		
		33,917	
BOMBAY.			47,362
British.			
Cavalry (1 regiment)	682		
Artillery (21 batteries)	3,188		
Engineers	62		
Infantry (10 regiments)	9,768		
		13,700	
Native.			
Cavalry (7⅛ regiments)	4,415		
Artillery (2 batteries)	423		
Sappers and Miners	808		
Infantry (26 regiments)	20,767		
		26,413	
			40,113
TOTAL			223,289

The

The number of Troops in the Burma District on the 1st of April 1893 was— ARMY.

British	3,814
Native	10,502
Total	14,316

1892-93.

The total of the Native Army Reserves in India on 1st April 1893 was 11,570.

The net expenditure on the Army in 1892-93 was—

In India	Rx.	14,799,048
In England	£.	4,842,420
Exchange	Rx.	2,913,323
Total	Rx.	22,554,791
Total in 1891-92	Rx.	21,500,197

The number of Volunteers in the whole of India on 1st April 1893 was as under:—

	Enrolled Strength.	Efficient.
Bengal	13,710	12,525
Madras	8,725	7,259
Bombay	5,501	5,166
	27,936	24,950

On the 1st of April 1892 the number of enrolled Volunteers was 26,746, of whom 23,454 were efficient. Tho number of Volunteers enrolled in the Reserve at the end of 1892-93 was 1,227.

During the year 1892-93 the following measures were sanctioned or brought into effect:—

The British cavalry regiments in India were organised in four squadrons, in lieu of eight troops as heretofore, the officer commanding a squadron being made responsible to the commanding officer of the regiment for the discipline, horses, arms, accoutrements, stores, &c., of the whole squadron. This system was already in force in the native cavalry.

Revised regulations were issued for the volunteer reserves to be formed in India and Burma. These reserve corps consist of Europeans or those persons of European descent who, from various causes, are unable or unwilling to enlist in active volunteer corps. They are armed and equipped in the same manner as members of active volunteer corps.

An important change in the system of recruiting for the Bengal native army was introduced on the 1st April 1892. Recruiting depots were established at the following stations, each to form the centre of a recruiting district for the classes specified:—

Peshawur	for Pathans.
Rawal Pindi	„ Punjabi Mohammedans.
Amritsar	„ Sikhs.
Sealkote (in winter)	„ Kashmir Dogras.
Dharmsala (in summer)	„ Kangra Dogras.
Delhi	„ Jats and Hindustani Mohammedans.
Lucknow	„ Hindustani Hindus.
Gorakhpur	„ Gurkhas.

ARMY.

Each centre is under an officer specially selected for his knowledge of the classes with whom he has to deal. All regimental recruiting parties report themselves to him for orders, and all recruits enlisted by them are brought to him for approval; but men presenting themselves for enlistment at regimental headquarters may be accepted and passed by commanding officers. The Peshawur district includes all trans-Indus territory north of Dera Ghazi Khan, and the Rawal Pindi district the tract between the Indus and the Jhelum. Operations from the Amritsar and Sealkote-Dharmsala centres extend to all districts inhabited by Sikhs and Dogras respectively; while the Delhi and Lucknow centres divide the rest of the recruiting area of Upper India, with the exception of the Nepal border, which is included in the Gorakhpur district.

With a view to increasing the efficiency and usefulness of the Intelligence branch of the Quartermaster General's department in India, it was enlarged and reorganised on the following scale:—The head of the branch is an Assistant Quartermaster General, and the whole office is divided into four sections, each under a Deputy Assistant Quartermaster General, who is assisted by a paid attaché and a sufficient clerical staff.

The military branch of the veterinary department in India was increased from 42 to 49 officers, to correspond with the increase in the number of horses which had taken place since 1885, when the establishment was reduced on the substitution of a system of station veterinary hospitals for the old regimental system.

During the year 1892, though the order did not have effect until the 1st April 1893, the following changes were sanctioned in the system of clothing, bedding, &c., for British troops:—

The State now provides all clothing actually required by the soldier, money compensation in lieu of clothing being abolished save in very special cases. All clothing, except light drill, remains the property of the State, instead of, as at present, becoming the property of the soldier, when the period fixed for its duration has been completed. These periods have been lengthened in the case of cloth clothing, which in many parts of India is little worn; and in view of meeting the requirements of various climates, commanding officers may substitute for any periodical issue other clothing of equivalent value. Similar changes are made in the bedding issues.

Concurrently with this change, the soldier is now required to pay for his necessaries at their cost price, converted at the rate of exchange for the year, instead of at 2*s.* the rupee as heretofore.

MILITARY OPERATIONS, 1892-93.

MILITARY OPERATIONS.

Isazai Field Force.

The object of the Isazai expedition was to capture and bring in Hashim Ali Khan of Teri, a notorious outlaw and brigand, who had taken up his abode in Baio, a Hassanzai village, near the right bank of the Indus, and to enforce the observance of the agreement concluded after the Black Mountain Expedition of 1891, by which the Isazai Tribes (Hassanzai, Akazai, and Mada Khel) were bound to give no shelter or protection to Hashim Ali Khan.

The following was the composition of the force, which was concentrated at Darband on the 1st October 1892:—

In command - - - -	Major General Sir W. Lockhart, K.C.B., C.S.I.
A.A.G. - - - - -	Major Martin, 5th Goorkhas.
D.A.A.G. - - - - -	Captain Gartside Tipping, 1st Bengal Cavalry.

1st Brigade - - - -	Brigadier General Pretyman, R.A.
Brigade Major - - -	Captain B. Duff, 9th Bengal Infantry.
1st Batt. Bedfordshire Regiment.	700 rifles.
4th Sikh Infantry - -	600 „
25th Bengal Infantry -	700 „

2nd Brigade - - - -	Colonel (Brigadier General) Hammond, Corps of Guides.
Brigade Major - - -	Captain W. G. Hamilton, East Lancashire Regiment.
1st Batt. King's Royal Rifles	700 rifles.
1st Batt. 5th Goorkhas -	450 „
2nd Batt. 5th Goorkhas -	450 „

Royal Artillery - - - - - Lieutenant Colonel Keith, R.A.
Nos. 3, 8, and 9 Mountain Batteries, R.A.
No. 1 (Kohat) Mountain Battery.

Divisional Troops:
11th Bengal Lancers, 2 squadrons.
Nos. 4 and 6 Companies Bengal Sappers and Miners.
30th Bengal Infantry, 700 rifles.

Reserve at Abbottabad:
2nd Batt. Seaforth Highlanders.

The force encountered no opposition on the part of the enemy. When Baio was reached on the 6th October 1892, it was found to have been abandoned. After destroying the defences the troops returned, and the field force was finally broken up on the 13th of October 1892. The conduct of the troops was excellent, but they suffered severely from sickness.

The post of Chilás, in the Gilgit Agency, had been for some time past held by 300 rifles of the Body Guard Regiment, Kashmir State troops, and with the rest of the line of communication to Bunji, had been placed under the immediate orders of Major Daniell, 1st Punjab Infantry. On the 5th March 1893, owing to convoy and other duties, the available rifles at Chilás were about 270. For some time Major Daniell had received warning that an attack was preparing, which was to take place on the night of the Mohammedan feast known as Shab-i-Barab. Gilgit.

Unfortunately a mistake was made in calculating the night, which was thought to be that of the 2nd and 3rd March 1893. The attack was made about 3 a.m. on the morning of the 5th, and the fighting, which was severe, lasted throughout the day, when the enemy retired. The casualties were:—

One British officer (Major Daniell), three Native officers, and 19 rank and file killed.

One Native officer and 22 rank and file severely wounded.

One British officer, Lieutenant F. J. Moberly, 37th Bengal Infantry, and five rank and file slightly wounded.

The number of the enemy was estimated at between 4,000 and 5,000, and their loss at 250 killed and 50 wounded.

MILITARY OPERATIONS.
Burma.

No military operation of any great importance took place in Burma during the year 1892–93.

A punitive expedition was organised to punish the Siyins and the Nwengals, on the west of the Manipur River. The operations were completely successful, and these tribes were reduced to a state of subjugation never before attained, as evinced by the surrender of 1,656 fire-arms, with a prospect of further disarmament before the close of the year.

Operations were also carried on by the military police against the Kachins to the north of Bhamo on the north-east frontier of Burmah.

The opposition of the tribes was severe and persistent, and was not overcome without considerable loss. Three British officers were killed: Captain Boyce Morton, Mr. Brooke-Meares, and Lieutenant Master, and three wounded; Native ranks, 34 killed and 66 wounded. Finally, a fort was established at Sima, where a permanent garrison was left. No further disturbances occurred during the year.

APPENDIX.

FINANCE.

TABLES showing the NET REVENUE and EXPENDITURE in the several Provinces of INDIA, and in ENGLAND.

Bengal.

BENGAL.

NET REVENUE.	1891-92.				1892-93.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	2,727,718	728,805	—	3,456,523	2,867,125	525,674	—	3,392,799
Opium	4,156,024	—	—	4,156,024	4,555,239	—	—	4,555,239
Salt	2,393,402	5,924	—	2,399,326	2,401,665	*—4,005*	—	2,397,660
Stamps	366,217	1,098,651	—	1,464,868	373,757	1,121,271	—	1,495,028
Excise	785,123	261,708	—	1,046,831	820,344	273,448	—	1,093,792
Provincial Rates	—	409,022	395,817	804,839	—	418,235	417,888	836,123
Customs	505,170	*—46,161*	—	459,009	500,336	*—48,963*	—	451,373
Assessed Taxes	213,112	206,395	—	419,507	209,253	202,193	—	411,446
Other Heads	*—19,464*	18,963	*—204*	*—705*	*—3,238*	19,008	*—489*	15,281
TOTAL	11,127,302	2,683,307	395,613	14,206,222	11,724,481	2,506,861	417,399	14,648,741
NET EXPENDITURE:								
Interest	*—130,110*	*—1,703*	*—3,761*	*—135,574*	*—141,904*	*—2,097*	*—3,942*	*—147,943*
General Administration	27,559	161,633	29,218	218,410	28,260	163,651	30,830	222,741
Law and Justice	—	869,614	—	869,614	—	885,394	—	885,394
Police	4,431	551,318	*—43,122*	512,627	—	560,413	*—41,672*	518,741
Education	—	195,645	107,430	303,075	—	197,191	99,171	296,362
Medical	—	141,988	6,683	148,671	—	144,223	7,906	152,129
Territorial and Political Pensions	119,990	—	—	119,990	118,611	—	—	118,611
Civil Superannuation	*—17,256*	147,254	127	130,125	*—11,201*	162,485	437	151,721
Stationery and Printing	182,795	117,848	4,998	305,641	163,381	124,370	5,099	292,850
Railway Revenue Account	*—65,228*	*—177,548*	—	*—242,776*	*—479,073*	*—308,107*	—	*—787,180*
Irrigation	—	279,329	74	279,403	—	245,144	*—173*	244,971
Buildings and Roads	76,045	362,016	385,175	823,236	32,138	251,193	411,169	694,500
Other Heads	65,742	*—40,037*	19,249	44,954	4,150	*—42,193*	44,982	6,939
Provincial and Local Balances	—	*—11,934*	*—22,574*	*—34,508*	—	*—9,826*	*—1,388*	*—11,214*
TOTAL	263,968	2,595,423	483,497	3,342,888	*—285,638*	2,371,841	552,419	2,638,622
Surplus	10,863,334	87,884	*—87,884*	10,863,334	12,010,119	135,020	*—135,020*	12,010,119

NORTH-WEST PROVINCES AND OUDH.

North-West Provinces and Oudh.

NET REVENUE.	1891-92.				1892-93.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	4,570,596	913,075	—314,275	5,169,396	4,621,539	870,997	—314,330	5,178,206
Stamps	169,612	508,836	—	678,448	175,362	526,085	—	701,447
Excise	382,577	127,526	—	510,103	400,571	133,523	—	534,094
Provincial Rates	—	173,395	764,177	937,572	—	173,088	764,809	937,897
Assessed Taxes	115,871	110,052	—	225,923	117,962	111,870	—	229,832
Forest	38,963	38,964	—	77,927	36,507	36,507	—	73,014
Other Heads	35,805	—24,791	—960	10,054	37,162	—25,856	—1,392	9,914
TOTAL	5,313,424	1,847,057	448,942	7,609,423	5,389,103	1,826,214	449,087	7,664,404
NET EXPENDITURE:								
Interest	—	—	—	—	73,835	3,820	—1,909	75,746
General Administration	20,370	125,090	7,383	152,843	22,551	127,801	7,433	157,785
Law and Justice	—	505,750	—	505,750	—	507,463	—	507,463
Police	3,141	353,352	253,869	610,362	—	375,968	256,044	632,012
Education	—	35,454	124,358	159,812	—	38,493	129,426	167,919
Medical	—	61,982	37,188	99,170	—	66,772	39,069	105,841
Scientific and other Minor Departments.	37,183	12,467	258	49,908	3,264	9,797	1,384	14,445
Territorial and Political Pensions	80,295	—	—	80,295	106,604	—	—	106,604
Civil Superannuation	—12,896	167,657	1,148	155,909	—11,831	175,562	1,465	165,196
Stationery and Printing	—718	45,894	122	45,298	—936	56,204	131	55,399
Railway Revenue Account	—648,415	—20,494	—	—668,909	—630,756	4,044	—	—626,712
Irrigation	—114,602	—49,206	—	—163,808	—115,907	—14,898	—	—130,805
Buildings and Roads	15,456	358,345	257,558	631,359	15,198	257,667	235,089	507,954
Other Heads	45,334	—8,143	4,187	41,378	42,064	—15,250	7,104	33,918
Provincial and Local Balances	—	—4,399	26,179	21,780	—	—16,752	23,374	6,622
TOTAL	—574,852	1,583,749	712,250	1,721,147	—495,914	1,576,691	698,610	1,779,387
Surplus	5,888,276	263,308	—263,308	5,888,276	5,885,017	249,523	—249,523	5,885,017

PUNJAB.

NET REVENUE.	1891-92.				1892-93.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	1,261,101	791,799	*—118,634*	1,934,266	1,402,426	682,755	*—116,819*	1,968,362
Stamps	196,047	196,047	—	392,094	97,705	293,115	—	390,820
Excise	89,420	89,420	—	178,840	132,892	44,297	—	177,189
Provincial Rates	—	56,378	342,014	398,392	—	58,282	350,150	408,432
Assessed Taxes	72,226	59,854	—	132,080	73,516	60,326	—	133,842
Other Heads	33,683	20,212	*—115*	53,780	29,330	13,957	*—381*	42,906
TOTAL	1,652,477	1,213,710	233,265	3,089,452	1,735,869	1,152,732	232,950	3,121,551
NET EXPENDITURE:								
General Administration	17,543	96,080	12,492	126,115	19,322	98,688	12,896	130,906
Law and Justice	—	323,149	28	323,177	—	336,023	45	336,068
Police	24,609	273,871	*—3,653*	294,827	—	320,181	*—4,012*	316,169
Education	—	78,322	51,300	129,622	—	75,852	53,721	129,573
Medical	—	51,180	28,763	79,943	—	56,386	31,670	88,056
Political	120,274	—	—	120,274	127,408	—	—	127,408
Territorial and Political Pensions	36,094	—	—	36,094	35,196	—	—	35,196
Civil Superannuation	*—6,959*	79,841	451	73,333	*—6,424*	79,205	548	73,329
Stationery and Printing	*—2,442*	41,526	2,024	41,108	*—2,390*	37,054	2,029	36,693
Railway Revenue Account	*—1,308,269*	8,631	—	*—1,299,638*	*—730,713*	—	—	*—730,713*
Irrigation	*—356,098*	15,393	*—2,357*	*—343,062*	*—406,888*	23,515	*—1,048*	*—384,421*
Buildings and Roads	43,541	290,533	92,258	426,332	49,944	273,118	87,622	410,684
Other Heads	46,281	296	7,357	53,934	33,480	1,803	8,220	43,503
Provincial and Local Balances	—	*—1,719*	*—8,791*	*—10,510*	—	*—106,050*	*—1,784*	*—107,834*
TOTAL	*1,385,426*	1,257,103	179,872	51,549	*—881,065*	1,195,775	189,907	504,617
Surplus	3,037,903	*—43,393*	43,393	3,037,903	2,616,934	*—43,043*	43,043	2,616,934

BURMA.

Burma.

NET REVENUE.	1891-92.				1892-93.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	1,044,827	690,160	1,385	1,736,372	1,242,050	584,015	1,641	1,827,706
Salt	160,953	*—1,016*	—	159,937	161,559	—	—	161,559
Stamps	76,406	52,395	—	128,801	59,124	92,400	—	151,524
Excise	326,367	93,300	—	419,667	364,933	103,728	—	468,661
Provincial Rates	—	—	93,543	93,543	—	—	97,427	97,427
Customs	691,365	*—14,389*	—	676,976	597,408	*—14,573*	—	582,835
Assessed Taxes	43,042	28,693	—	71,735	45,029	29,739	—	74,768
Forest	175,062	76,658	—	251,720	274,645	111,073	—	385,718
Other Heads	53,382	*—1,045*	*—35*	52,302	73,375	*—306*	*—46*	73,023
TOTAL	2,571,404	924,756	94,893	3,591,053	2,818,123	906,076	99,022	3,823,221
NET EXPENDITURE:								
General Administration	37,487	63,997	2,037	103,521	40,621	66,068	2,214	108,903
Law and Justice	90,187	138,989	—	229,176	94,443	136,715	—	231,158
Police	668,978	259,008	9,899	937,885	638,956	266,892	2,039	907,887
Marine	30,295	*—1,292*	3,582	32,585	42,096	3,722	2,066	47,884
Education	8,690	28,917	12,884	50,491	9,925	29,788	13,143	52,856
Medical	16,014	18,120	3,470	37,604	17,433	19,901	4,420	41,754
Political	36,144	13	—	36,157	35,016	28	—	35,044
Stationery and Printing	77	37,619	—	37,696	*—2,159*	45,330	—	43,171
Railway Revenue Account	*—99,874*	*—62,492*	—	*—162,366*	25,539	*—116,444*	—	*—90,905*
Irrigation	100,836	90,398	646	191,880	112,317	67,433	1,171	180,921
Buildings and Roads	478,683	264,736	38,120	781,539	407,695	287,416	55,533	750,644
Other Heads	33,789	33,654	*—11,768*	55,675	29,152	36,641	*—15,057*	50,736
Provincial and Local Balances	—	50,598	38,514	89,112	—	66,642	29,437	96,079
TOTAL	1,401,306	922,265	97,384	2,420,955	1,451,034	910,132	94,966	2,456,132
Surplus	1,170,098	2,491	*—2,491*	1,170,098	1,367,089	*—4,056*	4,056	1,367,089

FINANCE.

Central Provinces.

CENTRAL PROVINCES.

NET REVENUE.	1891-92.				1892-93.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	277,098	306,639	—41,276	542,461	300,778	274,169	—43,405	531,542
Stamps	41,373	124,118	—	165,491	40,729	122,186	—	162,915
Excise	204,109	68,037	—	272,146	203,533	67,844	—	271,377
Provincial Rates	—	21,243	78,756	99,999	—	22,308	77,189	99,497
Assessed Taxes	23,282	22,155	—	45,437	25,604	24,505	—	50,109
Forest	27,838	27,839	—	55,677	18,996	18,995	—	37,991
Other Heads	43,352	1,371	—7	44,716	45,879	1,650	—45	47,484
TOTAL	617,052	571,402	37,473	1,225,927	635,519	531,657	33,739	1,200,915
NET EXPENDITURE:								
General Administration	6,064	36,865	2,756	45,685	7,355	41,767	2,784	51,906
Law and Justice	—	89,467	—	89,467	—	95,024	—	95,024
Police	289	126,915	—11,106	116,098	—	135,521	—11,635	123,886
Education	--	30,137	19,722	49,859	—	26,559	23,739	50,298
Medical	—	26,109	4,022	30,131	—	29,394	5,339	34,733
Territorial and Political Pensions	26,939	—	—	26,939	26,217	—	—	26,217
Railway Revenue Account	—319,585	—	—	—319,585	—266,202	—	—	—266,202
Buildings and Roads	4,588	192,641	25,235	222,464	2,489	169,028	24,120	195,637
Other Heads	8,882	44,890	—3,996	49,776	2,516	47,586	—2,377	47,725
Provincial and Local Balances	—	17,540	7,678	25,218	—	—21,798	345	—21,453
TOTAL	—272,823	564,564	44,311	336,052	—227,625	523,081	42,315	337,771
Surplus	889,875	6,838	—6,838	889,875	863,144	8,576	—8,576	863,144

Assam.

ASSAM.

NET REVENUE.	1891-92.				1892-93.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	91,465	280,700	—	372,165	112,700	267,084	—	379,784
Opium	39,719	—	—	39,719	38,677	—	—	38,677
Stamps	19,734	59,201	—	78,935	19,477	58,433	—	77,910
Excise	194,647	64,882	—	259,529	193,094	64,365	—	257,459
Provincial Rates	—	—	54,488	54,488	—	—	54,720	54,720
Other Heads	2,851	14,508	—30	27,328	18,415	17,202	—17	35,600
TOTAL	358,416	419,291	54,458	832,165	382,363	407,084	54,703	844,150
NET EXPENDITURE:								
General Administration	4,755	19,099	259	24,113	5,078	24,538	280	29,896
Law and Justice	—	48,372	—	48,372	—	47,676	—	47,676
Police	—	117,038	—5,345	111,693	—	110,052	—5,468	104,584
Education	—	13,391	16,106	29,497	—	13,367	16,465	29,832
Medical	—	18,295	7,394	25,689	—	19,320	8,250	27,570
Railway Revenue Account	—	9,715	—	9,715	—79,436	8,799	—	—70,637
Buildings and Roads	42,011	100,860	41,461	184,332	86,648	126,879	50,909	264,436
Other Heads	21,790	42,353	2,224	66,367	—5,119	53,715	2,255	50,851
Provincial and Local Balances	—	31,185	11,342	42,527	—	9,336	—24,586	—15,250
TOTAL	68,556	400,308	73,441	542,305	7,171	413,682	48,105	468,958
Surplus	289,860	18,983	—8,983	285,860	375,192	—6,598	6,598	375,192

INDIA GENERAL, *i.e.*, the Departments and Districts not administered directly by the Lieutenant Governors and Chief Commissioners of the Provinces previously enumerated.

NET REVENUE.	1891-92.				1892-93.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	93,013	—	—3,026	89,987	91,117	—	—3,053	88,064
Salt	1,855,451	—	—	1,855,451	2,017,810	—	—	2,017,810
Stamps	83,637	—	—	83,637	123,725	—	—	123,725
Excise	91,134	—	644	91,778	100,323	—	711	101,034
Assessed Taxes	151,842	—	—	151,842	148,242	—	—	148,242
Tributes from Native States	218,985	—	—	218,985	219,271	—	—	219,271
Assignments and Compensations	—313,047	—	—	—313,047	—302,436	—	—	—302,436
Other Heads	2,387	—	6,292	8,679	2,411	—	6,852	9,263
TOTAL	2,183,402	—	3,910	2,187,312	2,400,463	—	4,510	2,404,973
NET EXPENDITURE:								
Interest	57,524	—	— 28	57,496	—99,105	—	— 28	—99,133
Post Office	—196,559	—	73	—196,486	—230,244	—	73	—230,171
Telegraph	—289,375	—	—	—289,375	—275,279	—	—	—275,279
Mint	—79,794	—	—	—79,794	—56,144	—	—	—56,144
General Administration	427,328	—	129	427,457	422,372	—	133	422,505
Law and Justice	109,049	—	13	109,062	116,659	—	— 48	116,611
Police	48,801	—	370	49,171	55,138	—	135	55,273
Marine	158,000	—	—	158,000	166,722	—	—	166,722
Political	440,788	—	28	440,816	489,528	—	24	489,552
Scientific and other Minor Departments.	196,156	—	175	196,331	202,172	—	90	202,262
Stationery and Printing	—150,015	—	52	—149,963	—142,964	—	12	—142,952
Famine Relief and Insurance	688,303	—	—	688,303	17,174	—	—	17,174
Railway Revenue Account	—4,698,257	—	—	—4,698,257	—4,256,931	—	—	—4,256,931
Irrigation	623,910	—	—	623,910	648,691	—	—	648,691
Buildings and Roads	1,157,558	—	2,067	1,159,625	1,060,259	—	2,616	1,062,875
Army	8,883,760	—	—	8,883,760	8,563,691	—	—	8,563,691
Special Defence Works	304,710	—	—	304,710	255,723	—	—	255,723
Other Heads	41,136	—	1,073	42,209	50,495	—	954	51,449
Local Balances	—	—	— 42	— 42	—	—	549	549
TOTAL	7,723,023	—	3,910	7,726,933	6,987,957	—	4,510	6,992,467
Surplus	—5,539,621	—	—	—5,539,621	—4,587,494	—	—	—4,587,494

FINANCE.

Madras.

MADRAS.

NET REVENUE.	1891-92.				1892-93.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	2,354,780	1,008,077	—313,369	3,049,488	2,949,768	1,085,744	—309,684	3,725,828
Salt	1,578,744	3,474	—	1,582,218	1,563,884	—34,450	—	1,529,434
Stamps	164,421	493,262	—	657,683	176,162	528,489	—	704,651
Excise	868,413	289,471	—	1,157,884	865,300	288,432	—	1,153,732
Provincial Rates	—	—	749,259	749,259	—	—	912,670	912,670
Customs	160,457	—12,307	—	148,150	160,958	—11,349	—	149,609
Assessed Taxes	103,320	85,995	—	189,315	109,311	91,792	—	201,103
Tributes from Native States	344,943	—	—	344,943	344,952	—	—	344,952
Assignments and Compensations	—121,914	—	—	—121,914	—116,362	—	—	—116,362
Other Heads	3,765	51,294	—2,747	52,312	21,298	29,128	—2,757	47,669
TOTAL	5,456,929	1,919,266	433,143	7,809,338	6,075,271	1,977,786	600,229	8,653,286
NET EXPENDITURE:								
General Administration	27,577	100,682	27,531	155,790	26,855	100,151	28,524	155,530
Law and Justice	—	436,590	—	436,590	—	449,456	—	449,456
Police	1,542	373,327	—	374,869	—	375,751	—	375,751
Education	—	132,071	84,036	216,107	—	140,659	84,005	224,664
Medical	—	107,695	128,443	236,138	—	113,666	124,015	237,681
Scientific and other Minor Departments.	35,169	16,145	—	51,314	4,458	18,320	—	22,778
Territorial and Political Pensions.	83,991	—	—	83,991	79,983	—	—	79,983
Civil Superannuation	—13,352	128,399	547	115,594	—10,653	132,613	1,100	123,060
Stationery and Printing	16,609	66,193	—	82,802	24,736	64,075	—	88,811
Famine Relief	—	15,663	—	15,663	—	24,426	—	24,426
Construction of Protective Works.	546,364	—	—	546,364	1,029,043	—	—	1,029,043
Construction of Railways (charged to Revenue, in addition to that under Protective Works).	—	42,662	—	42,662	201,225	91,902	—	293,127
Railway Revenue Account	—276,929	3,610	—	—273,319	—341,435	—	—	—341,435
Irrigation	—382,837	383,836	2,344	3,343	—414,496	317,143	1,888	—95,465
Buildings and Roads	11,579	297,601	351,219	660,399	13,053	240,249	368,717	622,019
Army	3,423,040	—	—	3,423,040	3,386,182	—	—	3,386,182
Other Heads	7,794	34,040	—39,353	2,481	8,320	32,973	—39,339	1,954
Provincial and Local Balances	—	—241,770	—99,102	—340,872	—	—159,081	66,802	—92,279
TOTAL	3,480,547	1,896,744	455,665	5,832,956	4,007,271	1,942,303	635,712	6,585,286
Surplus	1,976,382	22,522	—22,522	1,976,382	2,068,000	35,483	—35,483	2,068,000

BOMBAY.

NET REVENUE.	1891-92.				1892-93.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	1,707,460	2,083,773	*—10,210*	3,781,023	1,880,040	2,007,706	*—10,103*	3,877,643
Opium	1,841,618	—	—	1,841,618	1,673,055	—	—	1,673,055
Salt	2,175,625	5,667	—	2,181,292	2,086,360	5,708	—	2,092,068
Stamps	130,667	392,001	—	522,668	137,338	412,012	—	549,350
Excise	742,849	247,616	—	990,465	744,069	248,023	—	992,092
Provincial Rates	—	—	299,093	299,093	—	—	296,651	296,651
Customs	276,872	3,967	—	280,839	288,899	4,307	—	293,206
Assessed Taxes	196,758	167,731	—	364,489	208,892	174,211	—	383,103
Forest	67,876	67,875	—	135,751	68,564	68,564	—	137,128
Tributes from Native States	126,629	—	—	126,629	128,549	—	—	128,549
Other Heads	*—40,056*	*—6,820*	*—645*	*—47,521*	*—57,996*	*—6,950*	*—1,665*	*—66,611*
Assignments and Compensations	*—85,344*	*—918,752*	—	*—1,004,096*	*—58,255*	*—997,375*	—	*—1,055,630*
TOTAL	7,140,954	2,043,058	288,238	9,472,250	7,084,515	1,916,206	284,883	9,300,604
NET EXPENDITURE:								
Interest	*—145,860*	*—5,344*	426	*—150,778*	*—142,604*	*—5,442*	324	*—147,722*
Mint	*—49,443*	—	—	*—49,443*	*—158,498*	—	—	*—158,498*
General Administration	38,511	136,228	4,750	179,489	40,938	136,779	4,649	182,366
Law and Justice	—	440,475	—	440,475	—	438,693	—	438,693
Police	3,814	493,568	*—7,844*	479,538	—	461,779	*—18,404*	443,375
Education	—	135,581	122,614	258,195	—	135,511	122,789	258,300
Medical	—	121,441	16,081	137,522	—	130,273	18,170	148,443
Political	55,240	32,526	—	87,766	62,352	32,882	—	95,234
Territorial and Political Pensions	76,204	—	—	76,204	82,890	—	—	82,890
Civil Superannuation	*—14,084*	131,716	246	117,878	*—8,752*	137,333	34	128,615
Stationery and Printing	23,966	51,746	1,394	77,106	22,714	63,897	321	86,932
Construction of Provincial Railways.	—	117,221	—	117,221	—	42,181	—	42,181
Railway Revenue Account	*—135,290*	*—92*	—	*—135,382*	*—148,763*	12	—	*—148,751*
Irrigation	79,067	2,121	—	81,188	57,518	*—760*	—	56,758
Buildings and Roads	47,790	323,064	203,464	574,318	42,050	271,478	212,671	526,199
Army	2,714,839	—	—	2,714,839	2,849,175	—	—	2,849,175
Other Heads	12,783	54,624	*—1,081*	66,326	22,824	38,518	9,980	71,322
Provincial and Local Balances	—	*—53,189*	19,560	*—33,629*	—	*—23,888*	*—8,691*	*—32,579*
TOTAL	2,707,537	1,981,686	349,610	5,038,833	2,721,844	1,859,246	341,843	4,922,933
Surplus	4,433,417	61,372	*—61,372*	4,433,417	4,377,671	56,960	*—56,960*	4,377,671

NET EXPENDITURE in *England*, with the EXCHANGE thereon.

NET EXPENDITURE.	1891-92.			1892-93.		
	Sterling.	Exchange.	TOTAL.	Sterling.	Exchange.	TOTAL.
	£.	Rx.	Rx.	£.	Rx.	Rx.
Stamps purchased for India	34,105	14,811	48,916	31,277	18,817	50,094
Interest	2,580,879	1,120,780	3,701,659	2,409,174	1,449,420	3,858,594
Post Office	96,321	41,829	138,150	95,658	57,550	153,208
Telegraph	145,573	63,217	208,790	132,746	79,863	212,609
General Administration	249,532	108,362	357,894	255,545	153,742	409,287
Marine	133,447	57,951	191,398	290,476	174,758	465,234
Political	25,806	11,207	37,013	22,327	13,432	35,759
Scientific and other minor Departments	29,387	12,761	42,148	43,613	26,239	69,852
Territorial and Political Pensions	54,223	23,547	77,770	29,218	17,578	46,796
Civil Furlough Allowances	192,228	83,477	275,705	207,826	125,033	332,859
Superannuation	1,625,441	705,868	2,331,309	1,709,546	1,028,506	2,738,052
Stationery and Printing	41,098	17,847	58,945	52,868	31,807	84,675
Railway Revenue Account	5,651,951	2,454,430	8,106,381	5,723,260	3,443,258	9,166,518
Buildings and Roads	82,288	35,736	118,024	98,864	59,480	158,344
Army: Effective	2,375,232	1,031,474	3,406,706	2,462,689	1,481,617	3,944,306
„ Non-effective	2,141,764	930,088	3,071,852	2,379,731	1,431,706	3,811,437
Special Defence Works	209,263	90,875	300,138	126,332	76,005	202,337
Other Heads	48,242	20,949	69,191	43,158	25,965	69,123
TOTAL	15,716,780	6,825,209	22,541,989	16,114,308	9,694,776	25,809,084

SUMMARY.

PROVINCES, &c.	1891-92.		1892-93.	
	Surplus.	Deficit.	Surplus.	Deficit.
	Rx.	Rx.	Rx.	Rx.
BENGAL	10,863,834		12,010,119	
NORTH-WEST PROVINCES and OUDH	5,888,276		5,885,017	
PUNJAB	3,037,903		2,616,934	
BURMA	1,170,098		1,367,089	
CENTRAL PROVINCES	889,875		863,144	
ASSAM	289,860		375,192	
INDIA GENERAL	—	5,539,621	—	4,587,494
MADRAS	1,976,382		2,068,000	
BOMBAY	4,433,417		4,377,671	
ENGLAND and EXCHANGE	—	22,541,989	—	25,809,084
TOTAL	467,535			833,412

STATEMENT

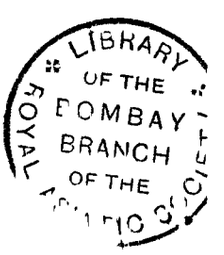
EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

INDIA

DURING THE YEAR 1893-94.



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299.

TABLE OF CONTENTS.

	PAGE
PREFACE	iii.
I. ADMINISTRATION AND LEGISLATION:	
Administration	1
Legislation	2
II. LOCAL GOVERNMENT, MUNICIPALITIES, AND SANITATION:	
Municipalities	5
District Boards	13
Port Trusts	17
Sanitation	21
III. CRIME, POLICE, JAILS, AND JUSTICE:	
Crime and Police	26
Criminal Justice	29
Jails	31
Civil Justice	33
IV. REGISTRATION:	
Registration	35
Joint Stock Companies	37
Patents and Designs	37
V. FINANCE:	
Finance	38
Capital Outlay on Public Works	40
Debt	41
Savings Banks and other Deposits	41
Cash Balances	42
Coinage and Paper Currency	42
Opium	43
Salt	44
Excise	48
Stamps	59
Customs	60
Provincial Rates	61
Income Tax	61
VI. SURVEYS AND SETTLEMENTS:	
Surveys	65
Settlements and Cadastral Surveys	69
VII. LAND REVENUE (INCLUDING FISHERIES, CAPITATION TAX, &c.) AND GOVERNMENT AND WARDS' ESTATES:	
Land Revenue	75
Wards' Estates	82
VIII. FORESTS	85
IX. AGRICULTURE AND MINERAL RESOURCES:	
Agriculture	91
Horse Breeding and Veterinary Colleges	95
Agricultural Produce:	
Wheat	96
Oilseeds	97
Rice	97
Cotton	98
Tea	99
Coffee	100
Cinchona	100
Jute	101
Indigo	101
Mines and Mineral Resources:	
Coal	102
Iron	102
Earth Oil	102
Gold	103
Rubies	103
X. PUBLIC WORKS:	
General	104
Railways	106
Irrigation	112
Buildings and Roads:	123
Military Works	123
Civil Works	124
XI. POST OFFICE AND TELEGRAPHS:	
Post Office	133
Telegraphs	135
Indo-European Telegraph Department	138
XII. EDUCATION AND LITERATURE:	
Education	141
Literature and the Press	145
XIII. EMIGRATION AND MIGRATION:	
Emigration	147
Migration	148
XIV. TRADE AND MANUFACTURES:	
Trade	149
Manufactures	152
Factory Act	155
XV. FRONTIER RELATIONS, NATIVE STATES, ARMY, AND MILITARY OPERATIONS:	
Frontier States and Frontier Relations	157
Internal States	162
Transmarine Dépendencies and Interests	169
Army	171
Military Operations	175
APPENDIX:	
Tables of Net Revenue and Expenditure	178

India Office,
June 1895.

A. Godley,
Under Secretary of State for India.

PREFACE

TO THE

THIRTIETH STATEMENT

OF THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

INDIA.

In February 1889, was presented to Parliament a Memorandum on some of the results of Indian Administration during the 30 years that had elapsed since India came under the direct control of the Crown. That account brought matters down to the year 1888; and it is proposed now to review briefly such further progress and such changes as may have been made during the six years ending in the month of March 1894.

General.—At the outset it may be well to recall what was said in 1889, that "India is not a single country with a homogeneous population. India is, in truth, a congeries of countries, with widely differing physical characteristics. It contains a number of peoples, speaking many languages, holding many creeds, observing different customs, and enjoying divergent degrees of civilisation. It is difficult, therefore, to speak correctly of India as a whole; and statements that may be quite applicable to some provinces do not apply to other provinces or sections of the country." During the six years, from 1888 to 1894, India has been free from war, and has not been visited by famine. On the hilly frontiers of Assam, of Upper Burma, of the Panjab, and of Biluchistan, expeditions and small bodies of troops have been employed in securing or restoring peace among frontier tribes: the year 1890-91 was darkened by a disaster and short expedition in Manipur; temporary scarcity and pressure on the people was caused by partial failure of the crops, in two northern districts of Madras during 1889, in nine districts of Madras during 1891, in three districts of North Behar, in Rajputana, and in the hill tracts of Kumaon during 1892, and in the Sangor territory during 1894. Relief works, suspension of the revenue demand, and gratuitous relief, in accordance with the Famine Code, sufficed to carry the poorer classes of those regions through the temporary distress caused by these local failures of the harvests. Neither the Frontier Expeditions, nor the partial scarcities had any broad or lasting effect on the welfare of the people. The loss of life caused by expeditions was small, and the stoppage of increase of population due to scarcity was inconsiderable. The cost and loss of revenue due to warlike operations and to scarcity was not large. The census of 1891 showed that, apart from the inhabitants of the recently-acquired territory of Upper Burma, and apart from the people of Kashmir who had not been counted in 1881, the population of India had increased during the ten years 1881–91 by 28 millions or 11 per cent.; and the population of Southern India had more than recovered the losses caused by the great famine of 1877. Including new territory, the British Empire in India and its feudatories contained in 1891 a population of 287 millions, as compared with 254 millions in 1881, and 236 millions in 1871.

The years 1888–92 were not years of plenty, prices of food ruled higher than in the previous decade, and in some provinces the labouring classes were at times pinched. But during 1893 and 1894 harvests have been generally bountiful, and prices have fallen. In the Panjab and Burma, two provinces which produce a large surplus of food beyond their own requirements, prices in 1894 ruled lower than they had done for many years past.

ADMINISTRATION.

Administrative Progress.—No changes have been made in the constitution of the supreme or local Governments in India during the past six years. The province of Upper Burma has been pacified, and is now as quiet and well ordered as Lower Burma; while the deficit between revenue and expenditure in the new province has been reduced from Rx. 2,618,000 in 1887–88 to Rx. 1,082,009 in 1893–94. The strength of the military police force, which was raised to quell disorder in Upper Burma, has been reduced from 18,000 to 12,000 men; and this force has undertaken the duty of maintaining order among the hill tribes on the borders of Burma. The pacification of Upper Burma has contributed to the prosperity of Lower Burma, which yielded a surplus of revenue over its civil expenditure of Rx. 2,098,000 in the year 1892–93, as compared with Rx. 1,374,000 in the year 1887–88. For the rest, the administration of British India and of Native States has proceeded on the lines existing in 1888.

Legislative Councils.—The most important constitutional change introduced was the enlargement of the Legislative Councils and the extension of their powers. At pages 2 and 3 of the present Statement will be found a detailed account of the changes which have been made in pursuance of the Indian Councils Act of 1892. Briefly, the number of additional members on each of the five Legislative Councils has been considerably increased, and stands now at from 8 to 20, of whom the majority are non-officials. A considerable proportion of the additional members are elected representatives of local bodies. For instance, five members of the Governor General's Council are elected by the non-official members of the four Provincial Councils, and by the Chamber of Commerce; on the four Provincial Councils from six to eight members are representatives, chosen by local bodies such as Municipal Corporations, District Boards, Chambers of Commerce, and University Senates. Before 1892 the Legislative Councils of India were able to discuss only such legislative business as might be placed before them; they are now empowered to discuss the annual financial statements made by the Government; and members are at liberty, at any meeting of the Council, to put questions to the Government on any administrative, judicial, fiscal, or other question concerning the Empire or the province, subject to certain limitations in regard to matters that cannot be discussed consistently with public interests. Representative members of the several Councils have already availed themselves freely of the power thus to put questions to the Government on subjects of public or local interest and importance.

Information about India.—The census of 1891 was more complete and correct than any former operation of the kind, and the census reports for India and the several provinces have added materially to the stock of information concerning India. A dictionary of the economic products of India, compiled by Dr. George Watt, has been published, bringing together in a convenient shape all that is known about India's products. Agricultural statistics regarding the Province of Bengal had heretofore been wanting, but have been made available since 1890. The investigations and reports by a Royal Commission on Opium in India; by a Commission on Ganja and Hemp Drugs; by a Commission on Leprosy; by an expert agricultural chemist (Dr. Voelcker) on the improvement of Indian agriculture, have resulted in much accurate information and many valuable suggestions for the guidance of Indian authorities on these subjects. The cost of the Opium Commission was defrayed by the British Treasury, and of the Leprosy Commission by private benevolence. Gradual further improvement has taken place in collecting and making public information concerning the trade, the vital statistics, the meteorological phenomena, the crops and the crop prospects in all parts of India.

Employment of Natives of India.—In accordance with recommendations made by the Public Service Commission, arrangements have been made whereby a proportion of the posts hitherto reserved for the superior civil service, of the posts in the superior forest service, of the superior posts in the engineering service, and of the posts in the Survey Department, have been set apart for members

members of the provincial civil service, which will be recruited more or less exclusively from Natives of India. In illustration of the way this arrangement will work, it may be stated that out of 162 superior executive and judicial posts in Bengal, and 159 similar offices in the North-Western Provinces, 20 and 21 respectively are to be reserved for men of the provincial service. In the forest department, out of 196 superior offices 40 are to be reserved for the provincial service. Some time must elapse before all the posts allocated to the provincial service are filled by officers belonging to the service. At the present time (April 1895) there are in the superior civil service of the province of Bengal 194 officers in all, of whom 22 are natives of India; while in that province 14 of the superior civil offices (district judgeships, collectorships, or chief executive offices of districts, and higher posts), besides three high court judgeships, are filled by natives. In April 1888 the corresponding figures were 213 members of the superior civil service, of whom 18 were natives, while 7 superior offices of the grades mentioned and two high court judgeships were filled by natives. Thus the employment of Natives of India in the more important offices of the Government is being extended, and will be still further developed when the provincial service scheme takes full effect. The subordinate civil service is, in most parts, recruited exclusively from natives of India, save in the police, survey, salt, opium, and financial departments, where European subordinate agency is still, to some extent, employed. A subsequent paragraph describes how the people and their representatives are, under the law, administering municipal and local affairs.

LAW AND JUSTICE.

Legislation.—No important additions have been made to the Indian Code during the six years. Most of the new enactments have related to local and municipal matters, to administrative affairs, or to special tracts like Upper Burma, for which regulations on many subjects had to be framed. Among the Acts passed by the Supreme Legislature were the Merchandise Marks Act, the Indian Ports Act, a Guardian or Wards Act, a Prisons Act, two Tariff Acts, and consolidating or amending Acts relating to Municipalities in the Panjab, Burma, and the Central Provinces, to Railways, to the Acquisition of Land for Public Purposes, to Burma Courts, to Indian Ports, and to Inland Emigration. The Bengal Legislature passed a Calcutta Municipality Act, besides an Assam Emigration Act, a Fire Brigade Act, and Acts relating to Revenue arrangements, and other local matters. The North-Western Provinces Council enacted no laws for four years, and then passed Acts relating to Town Waterworks, to Village Sanitation, and to Town Lodging-houses. The Madras Council passed a new Madras Municipal Act, and Acts relating to Local Boards, to Village Petty Judges (Munsifs), and to Village Officers. The Bombay Council passed a Bombay Municipality Act, two Village Sanitation Acts, and a District Police Act. Discussion was keenest over the Municipal Acts, the Factories Act, and the Land Acquisition Act. Representative members took an active share in the business of the several Legislatures, as critics of Government measures, as spokesmen for provincial and local interests, and very rarely as proposers of new laws.

Civil Justice.—The judges of civil courts of first instance are now almost everywhere natives of India, and so also are many of the appellate civil judges. For the rest, no considerable changes have occurred in the organisation or procedure of the civil courts. The total number of civil and revenue suits before the civil courts of original jurisdiction increased during the six years from 1,908,869 (in 1886) to 2,114,592 (in 1892); and the total value of the property in litigation had risen from Rx. 20,173,000 to Rx. 22,864,000. The largest increase was in suits under the Rent Laws, which rose from 471,000 to 584,000; suits for money and moveable property increased from 1,164,000 to 1,219,000; suits on unwritten contracts fell from 175,000 to 163,000, a decrease which evidences somewhat increased care on the part of both borrowers and lenders. Suits connected with marriages and matrimonial rights rose in the six years from 5,250 to 7,948, of which latter number 5,363 cases pertained to the Panjab, the only province in which such cases are rife. The average duration of contested suits fell from 117 to 81 days, and of uncontested suits from 52 to

41 days. The proportion of cases decided without contest increased from 75 per cent. in 1886 to 78 per cent. in 1892; and the total number of cases referred, with consent of the parties, to arbitration, fell from 8,549 to 7,210. The number of appeals from decrees rose from 138,000 to 147,000; while the number of decrees modified, reversed, or remanded, was 32,969 in 1892, against 33,248; thus the proportion of appeals in which the original decision had to be altered fell from 24 per cent. to 22 per cent. in 1892.

Police.—Much attention has been given to the improvement of the police during the past six years. The military police of Burma have been organised and turned into an efficient force for quelling disorder, guarding the border and repressing rapine among hill tribes on the frontiers.

In Bengal, in the North-West Provinces and in Bombay, investigation has been made into the working of the police; the strength of the force has been increased; and the scales of salaries have been revised, so as to improve the position and the calibre of the more responsible Native officers. The numbers of the ordinary police in India have risen from 142,000 in 1886 to 150,000 in 1892, and the cost from Rx. 2,377,000 to Rx. 2,699,000; 7,883 of the additional men, and Rx. 168,000 of the increased cost, are on account of the Upper Burma Police, who do not appear in the figures for 1886. These figures are exclusive of the military police in Lower and Upper Burma, which are 15,000 strong, and cost Rx. 510,000; this military police force has been organised since 1886. The number of superior officers, belonging, so to speak, to the commissioned ranks, in the ordinary police, rose from 372 to 414, of whom 28 were natives of India.

Besides the regular police there are the village watchmen, or village police, who, under different names, are found in all parts of India. In several provinces attention has recently been directed to organising the village police, improving their efficiency, and enabling them to be more useful to the community and to their neighbourhoods.

Crime.—The number of reported cases of cognizable crime (that is, crime for which the police can arrest without warrant) for all India was 637,000 in 1886 and 734,000 in 1892; of this latter total 13,000 cases pertained to Upper Burma. The reported cases of offences of the more serious kinds, and the results of police action, varied as follows:—

	Number of Cases.		Number of Convictions	
	1886.	1892.	1886.	1892.
Murders and attempts at murder - -	2,687	3,348	897	1,128
Grievous hurt, and by dangerous weapons -	10,347	11,751	4,825	5,246
Gang robbery and robbery - - -	2,701	4,302	814	1,411
Cattle theft - - - - - - -	20,350	24,293	6,547	8,489
House-breaking and house-trespass -	113,567	141,829	13,965	18,034
Theft - - - - - - - -	151,495	159,503	46,855	53,289
Rioting, &c. - - - - - - -	6,536	6,608	3,099	3,248

	1886.	1892.
	Rx.	Rx.
Value of property stolen - - -	879,000	973,000
Value of stolen property recovered -	285,000	301,000

Part of the increase in crime was due to the inclusion of figures for Upper Burma in the later year; the year 1892 was also a season of high prices for food in many parts of India. The recent fall in prices did not begin until the spring of 1893.

Criminal Justice.—No important change has taken place in the procedure or working of the criminal courts. An increasing share of criminal business falls upon Native Indian magistrates; and petty offenders, especially in cases of breach of municipal and sanitary regulations, come largely before honorary magistrates

magistrates and municipal benches. The criminal business coming before the courts and the results of the action of the courts at the two periods may be thus shown :—

	1886.	1892.
Number of persons brought to trial	1,352,572	1,639,734
Number of persons discharged or acquitted	649,523	771,615
Number of persons convicted or committed	677,685	816,625
Number of persons sentenced to death	343	429
Number of persons sentenced to transportation	2,565	1,596
Number of persons sentenced to imprisonment for over two years.	4,976	6,473
Number of persons sentenced to imprisonment for over six months and not over two years.	23,550	33,007
Number of persons sentenced to imprisonment for over fifteen days and not over six months.	79,363	92,731
Number of persons sentenced to imprisonment for fifteen days and under.	28,513	33,007
Number of persons sentenced to fine	492,625	600,808
Average of fine imposed	6·1 rupees	6·3 rupees
Number of persons sentenced to whipping	12,751	17,951
Number of persons who appealed against sentence	112,241	150,968
Number of persons who obtained reversal or reduction of sentence on appeal.	23,137	32,429

Jails.—Much attention was given during the years 1888-94 to jail affairs; in March 1894 was passed an amended Prisons Act, extending to the whole of British India, and laying down general principles and rules as to the discipline, employment, separation, and punishment of prisoners, and as to the duties of prison officials. Much care has been taken to improve the health of prisoners, more especially in those provinces which had been most unhealthy. The average death-rate in jails all over British India was 33 per 1,000 in 1886, was up as high as 36 in the years 1887 and 1889, and came down to 24 per 1,000 in the year 1893, which was an unusually healthy season over the greater part of India. The prison death-rates in India, which in some provinces mount as high as 60 or 70 per 1,000 in unhealthy years, are high compared with similar rates in Europe, or with the death-rate among the adult free population. But improvement is gradually being attained, and prison life in the tropics is naturally subject to many risks; in the colony of Ceylon, for instance, the death-rate among prisoners was 54 per 1,000 in 1892 and 56 per 1,000 in 1893, yet during the latter year the health of the prisoners in the island is said to have been "on the whole satisfactory." The following figures compare the more important prison statistics for all India during the years 1886 and 1893 :—

	1886.	1893.
Total number of district and central jails	236	239
Total number of prisoners received during the year	440,090	547,132
Daily average number of prisoners	75,978	94,964
Of whom were males	73,081	91,976
Of whom were females	2,897	2,988
Number of prisoners who died during year	2,530	2,150
Ratio of deaths per 1,000 of average strength	33·34	24·30
Percentage of previously convicted prisoners on total number	11·72	12·25
Average number of sick daily	2,431	3,161
Average daily number of prisoners employed on jail duties, making jail requirements, and jail buildings	29,730	40,135
Average daily number of prisoners employed on manufactures	25,903	33,829
Average daily number of prisoners employed on public works	3,473	4,994
Average daily number of prisoners employed on unremunerative labour	1,985	1,581
Total number of jail offences committed by prisoners	81,327	134,284
Number of whippings inflicted for jail offences	3,094	1,892
Total expenditure on jails, exclusive of new buildings	Rx. 475,988	Rx. 570,202
Total yearly cost per head of daily average strength	Rupees 62⅔	Rupees 60
Average cash earnings per head by manufactures	Rupees 15	Rupees 16
Average net cost per head of daily strength	Rupees 47⅓	Rupees 44

REVENUE.

Land Revenue and Surveys.—There has been no material alteration in the land revenue or tenancy laws during the past six years. In all provinces cadastral surveys and resettlements of land revenue have been prosecuted. In the Panjab, North-Western Provinces, and Bombay the resettlement of several districts was effected after the conclusion of the previous 30 years' settlement; in Madras and Lower Burma the first regular settlement was extended to a small number of fresh districts; in Assam the revenue rates, which had stood unchanged for 26 years, were revised; in the Central Provinces the first regular settlement expired and resettlements were either completed or begun in every district; in Oudh resettlements were begun towards the close of the six years. In nearly all these tracts the revised settlement was based either on a new cadastral survey and register of all revenue-paying lands, or on the village records, where these documents were found, after revision, to afford sufficiently correct data for the settlement. In Oudh the resettlement is being based on the ascertained rentals enjoyed by the landlords, so as to avoid, as far as possible, harassment to the people. In all temporarily settled provinces arrangements have now been completed whereby the village land records will be revised accurately and scientifically, year by year, so that in future generations a resettlement of the land revenue will be feasible without large outlay or long delay, and without inconvenience to the rural community. The cost and duration of resettlements has been greatly reduced everywhere, and has throughout the Central Provinces cost less than Rx. 10 per square mile, as compared with Rx. 45 at the previous survey and settlement of 1860–69. In the permanently settled districts of Behar a beginning was made with a cadastral survey and record of rights, in order to safeguard the ryots in their rights which had been recognised by the Bengal Tenancy Act of 1886. Some opposition was offered by the landlords to this measure, which may cost over Rs. 32 per square mile, and will be, for the most part, a charge upon the people of the tracts interested. A revised cadastral survey was finished during the year 1889 over the five permanently settled districts of the Benares province. This survey was undertaken not for revenue purposes, but to secure the landed rights of the five millions who inhabit these districts; the cost of the survey and record of rights came to Rx. 44 per square mile. Apart from the permanently settled districts of Bengal and Madras correct cadastral surveys and records of rights have now been made for all India, except Upper Burma, Orissa, and Malabar, in which provinces the work is now proceeding. Under the system, which has been established for correcting and maintaining the cadastral records year by year, it is hoped that necessity for another cadastral survey of these vast areas will never arise again.

The Great Trigonometrical Survey, which gave the geodetic basis for all the surveys of India, has been extended to Upper Burma, and is now practically complete. During the past six years topographical and exploration surveys have been extended over between 250 and 300 thousand square miles of country in Upper Burma, in the Shan States, in the deserts of continental India, in the Himalayan regions, and in tracts beyond the administrative borders of India; and great additions have been made to our geographical material. The geological survey has continued its scientific work, and have filled up sundry gaps in the geological map of India. During the past years their attention has been mainly directed to economic geology. Officers of the survey have investigated and reported upon the coal out-crops of Burma, Darjeeling, the Panjab, Baluchistan, and the Deccan; upon the petroleum fields of Burma, of Assam, and Baluchistan; upon the tin mines of Lower Burma; upon areas reputed to contain gold in the Deccan, Southern India, Chota Nagpur, and Upper Burma; upon the amber and jade mines of Upper Burma. The Marine Survey vessels and boats have effected revised surveys of many parts of the Indian coasts where the land changes, besides verifying channels and reputed dangers in the Indian Seas.

The gross collections of land revenue rose from Rx. 23,653,000 in 1887–88 to Rx. 25,589,000 in 1893–94. Out of the increase of Rx. 1,936,000, a part, namely, Rx. 274,000 accrued in Upper Burma, and was due to the pacification of that province. The rest, Rx. 1,662,000, was due to extensions of cultivation

and to revisions of revenue rates at periodical resettlements. It happened that in the Central Provinces, Assam, and Bombay, an unusually large number of long term (30 years) settlements expired and were renewed at enhanced rates during the six years 1888-94. The justification for these enhancements was that prices of produce had risen, or that cultivation had been extended, or that both these phenomena had occurred, during the period for which the previous settlement had lasted. It was stated with confidence by the Government that over the province of Chutteesgurh, where the enhancement of land revenue at the recent settlement were proportionately greater than in any other part of India, the rental paid by the ryots * "averaged no more than 5 per cent. of the gross produce of the land." The Government revenue and the local cesses in Chutteesgurh do not exceed two-thirds of the rental; so the revenue alone cannot at most amount to 4 per cent. on the value of the produce of that province.

Salt Revenue.—There has been no alteration in the rate of the salt duty since January 1888, when the rate was fixed at 2½ rupees per maund (about 82 lbs.) for all India, except Burma where the rate is one rupee per maund. The changes in the methods of administering the salt revenue have been as follows:—in Orissa the management of salt affairs has been transferred from the Bengal to the Madras authorities, but the transfer has not, so far, yielded satisfactory results; in Madras a number of Government salt factories have been established, with the result of nearly doubling the reserve stocks of salt and reducing the cost price of salt (exclusive of duty) by over 30 per cent.; at the Rajpûtana salt sources the cost price of salt (exclusive of duty) was brought down to 2½ annas a maund in 1892, though in 1893 it rose considerably by reason of the wet weather which prevented the manufacture of salt.

The consumption of and revenue from salt in India have been:—

	1887-88.	1888-89 (First year of the enhanced duties.)	1893-94.
	Maunds.	*Maunds.*	*Maunds.*
Total consumption of salt - -	33,627,000	31,916,000	34,029,000
Total revenue from salt - - -	6,361,000	7,578,000	8,229,000

The salt revenue of 1893-94 was considerably (4 per cent.) below that of the previous year, partly by reason of the bad season for salt manufacture in Rajputana, and partly because unusually large sales were made in Madras on the credit system. The rate of salt consumption per head of the population shows, as in former years, great variation in the different provinces, ranging for 1893-94 from 17½ lbs. per head in Burma, 16¾ lbs. in Madras, 11⅝ lbs. in Bombay, to 10¼ lbs. per head in Bengal, and about 8 lbs. in the North-Western Provinces. Over the whole of British India, the average incidence of the salt tax is 4¾ annas (or about 4*d.*) per head of the population. It will be recollected that about 275 millions of the people of India consume salt that has paid duty to the British Indian Exchequer, including not only the population of British India, but also the greater part of the inhabitants of Native States. The salt tax is practically the sole contribution made to the State Exchequer by a humble Indian villager, who holds no land, consumes no spirituous liquors or narcotic drugs, and abstains from litigation.

Opium.—The period from 1888 to 1894 has seen a succession of bad opium harvests. The area growing opium in the Gangetic plain, which was 595,000 acres in 1886, and 537,000 in 1888, fell to 474,000 in 1893, of which area 20,000 acres failed to yield any crop; and the number of chests of opium manufactured was 40,505, as compared with 74,325 chests in 1888. The number of chests

* *See* speech of Sir Anthony MacDonnell, Member of the Viceroy's Council, at meeting of the Indian Legislature on the 28th March 1895 (page 290 of the Supplement to the "Gazette" of India, dated 6th April 1895).

chests of Malwa opium, brought from Native States for export from Bombay, also fell from 37,214 in 1887–88 to 26,675 in 1893–94. In consequence of this shrinkage of production, the exportation of opium from India, which in 1879–80 had reached 105,508 chests, fell from 90,096 chests in 1887–88 to 70,841 chests in 1893–94. The reserve of Bengal opium in Calcutta which had been created in order to maintain the yearly sales at a steady level, has been absorbed; and the sales of Bengal opium, which had for some years been kept at 4,750 chests a month, and stood at that figure in 1887–88, were reduced in 1894 to 3,105 chests a month. The average price fetched by Bengal opium at the Calcutta sales was 1,059 rupees per chest in 1887–88; it rose to 1,247 rupees per chest in 1892–93; and it was 1,109 rupees per chest in 1893–94. Towards the end of 1894 prices rose considerably, and in February 1895 reached 1,540 rupees per chest, the highest average price at any sale during the last 24 years; but it fell again to 1,327 rupees per chest in March 1895. In 1887–88 the duty on Malwa opium was 650 rupees; it was reduced to 600 rupees per chest in 1890–93, and was raised again to 650 rupees in 1894. The gross and net revenue from opium at the two periods was :—

	Gross Revenue from Opium.	Expenditure on Opium.	Net Revenue from Opium.
	Rx.	Rx.	Rx.
1887–88 - - - - - -	8,515,000	2,425,000	6,090,000
1893–94 - - - - - -	6,627,000	1,876,000	4,751,000

These revenues accrue on opium exported from India, and are exclusive of the revenue (Rx. 997,000 in 1893–94) raised on opium consumed in British India. The decrease in expenditure during the later year was due to the unfavourable opium harvest; the chief expenditure under the head of "opium" is the price paid for the raw opium produced in Bengal, all of which has to be delivered by the growers to Government factories for conversion into exportable opium. The price paid to growers for the raw drug was increased in 1894 from 5 rupees to 6 rupees per seer of a little over 2 lbs. weight.

In consequence of discussions in the House of Commons, a Royal Commission was appointed in July 1893 to report whether the growth and sale of opium in India should be prohibited; whether any change short of prohibition should be made in the present system; and what was the disposition of the people of India in regard to these matters. The Commission after taking evidence of people in many parts of India submitted their report in April 1895, to the effect that prohibition of opium was not advisable, and was not desired by the people of India. The report was signed by the majority of the Commission, including the Indian members; one member dissented from his colleagues, and submitted a minority report recommending prohibition of the growth and sale of opium save for medicinal purposes.

Customs.—The Memorandum of 1889 said, "Gradual reductions of duties were made, until in the year 1882 all customs duties whatever were abolished except on importations of salt, opium, wine, beer, spirits, and arms, and export duties were retained only on opium and rice. Recently an import duty has been imposed on petroleum. The salt and liquor duties, which are the necessary complement of excise duties, do not hamper the general trade of the country; the duty on arms and ammunition is levied as a matter of police precaution; and the trade of India is now, on the whole, more free from customs burdens than the trade of any great country in the world." That account of matters remained true until the year 1894 when the Indian Government had to meet largely increased charges caused by the fall in the gold price of silver; in March and December 1894, new import tariffs were enacted, imposing a 5 per cent. duty on the great bulk of imported goods, except machinery and iron. It is estimated that the new import duties will yield Rx. 3,000,000, about one-half of which will be payable on importations of cotton goods. The total yield of the customs

duties

duties at the beginning and end of the period to which the present paper relates was :—

	1887-88.	1893-94.
	Rx.	Rx.
Export duty on rice	756,000	660,000
Import duty on liquors	528,000	596,000
„ „ petroleum		263,000
„ „ arms, ammunition	22,000	35,000
„ „ under the new tariff of March 1894		185,000
TOTAL Rx.	1,306,000	1,739,000

Excise.—Considerable attention has been paid during the past six years to the administration of the excise regulations concerning spirits, liquors, and narcotic drugs consumed by the people of India. Effort has been directed to reducing the facilities or temptations to over-indulgence. In pursuance of this policy, the duty on imported spirits has been enhanced; *the duties on spirits and fermented liquors made in India have been increased; over large areas in many parts of the country the system of levying a still-head duty on all spirits has been extended, while the areas in which the monopoly of the liquor trade was farmed have been proportionately restricted; the duties levied on opium and hemp drugs have been raised; the number of shops licensed for the retail of spirits, liquors, and drugs, has been largely reduced; and in Burma the sale of opium to, and the consumption of opium by, people of Burmese race has been absolutely prohibited.† Complete comparative statistics of the consumption of spirits at the two periods cannot be given; for no correct information is obtainable regarding the consumption in those tracts which were, or which are, supplied with liquor under the monopoly system. But it may be stated that the quantity of spirits imported into India was 1,084,487 gallons in 1887-88, and was 1,067,373 gallons in 1893-94. For the past three years compiled tables are available, showing the reduction in the number of licensed retailed shops for liquors and drugs of all kinds, and the contrast is as follows :—

FOR SALE OF	Total Number of Licensed Retail Shops.	
	1890-91.	1893-94.
Spirits made in India	36,266	33,148
Imported spirits and liquors	3,222	3,024
Toddy, rice beer, and other fermented Indian drinks	47,959	43,430
Opium and its compounds	10,380	9,460
Hemp drugs	11,335	11,613
TOTAL	109,162	100,675

In some provinces the reduction in licensed liquor and opium shops has, despite the increase of population, been very considerable during the past six years; for instance, the province of Madras in 1888-89 contained 17,736 shops licensed for the retail sale of Indian spirits, and 26,180 shops licensed for the sale

* *Note.*—The import duty on spirits, which had been raised in 1887 from 4 rupees to 5 rupees per gallon, was again increased in 1890 to 6 rupees per gallon of London proof spirit.

† *Note.*—The sale and consumption of hemp drugs in Burma was absolutely prohibited in 1875, and the prohibition has since been maintained.

sale of toddy, or 43,916 shops in all; in the year 1893–94 Madras contained 11,402 Indian spirit shops, and 19,125 toddy shops, or 30,557 shops in all. In most provinces spirits, opium, and hemp drugs pay a higher duty and are retailed at higher prices than obtained six years ago; and it is claimed that the excise revenues have increased mainly by reason of heavier excise duties and more careful excise administration, and that only a small proportion of the increase is properly attributable to the increased consumption of stimulants. The total excise revenues of the two periods are comparable, thus:—

	1887–88.	1893–94.
Excise duties and fees on spirits and fermented drinks	3,379,000	3,939,000
Excise duties and fees on opium	1,156,000	994,000
Excise duties and fees on hemp drugs		355,000
TOTAL	4,535,000	5,288,000

As is stated in the excise chapter of the appended statement, the total number of licensed shops for the sale of intoxicants and narcotics in India came, in 1883–94, to one shop to an average of 2,253 of the population; in the United Kingdom, during the same year the licenses for beer, wine, and spirits, came to one shop to an average of 237 persons; in neither case are temporary or part-year licenses reckoned.

Income Tax.—The income tax is levied at the same rates as in 1887–88, namely, at 2 per cent. on incomes between Rx. 500 and Rx. 2,000, and at 2·6 per cent. (about 6¼*d.* in the £.) on incomes above Rx. 2,000 a year. Incomes below Rx. 500 a year, and incomes derived from agriculture are exempt. The only change during the six years is that the tax has been extended to Burma. The total receipts from income tax, after deduction of refunds, were Rx. 1,718,000 in 1893–94, as compared with Rx. 1,411,000 in the year 1887–88. Last year Rx. 435,000 of income tax, or 25 per cent. of the total receipts, were paid in respect of salaries, pensions, and interest on Government securities.

Stamp Revenue.—There has been no change in the rates at which stamp duties are imposed during the past six years. The gross stamp revenue of the two periods was:—

	Stamp Revenue Receipts in	
	1887–88.	1893–94.
	Rx.	Rx.
Court fee stamps	2,650,000	3,063,000
Commercial and other stamp receipts, less by refunds	1,182,000	1,394,000
TOTAL Rx.	3,832,000	4,457,000

The ratio between court fee receipts, which are a tax on justice, and other stamp receipts, which are a tax on business transactions, has not greatly changed; the increase in court fee income was 15 per cent., and in commercial stamps was 17 per cent. during the six years; court fees still constitute about 68 per cent. of the total stamp revenue.

Forest Conservancy.—Much progress has been made in systematising the working of State forests, which are conserved mainly in the interests of the present and future population of India. In Madras, where forest work was backward, and in Upper Burma special advance has been attained. In 1894 the reserved forests covered an area of about 78,000 square miles, besides 36,000 square

square miles of protected State forests from which further reserves, especially in Upper Burma, will be selected. During the past six years, considerable forest areas in the Central Provinces have been taken out of the reserves and have been made available for extensions of cultivation; there has been a relaxation of some of the forest regulations which pressed unduly on rural communities in Bombay; general instructions to all forest officers have been issued to the effect that State forests are to be administered for the benefit of the people in the first place, and in the second place, for the benefit of the treasury. Surveys and detailed working plans of the richer forests have been and are being prepared. In several tracts, reserved forests were thrown open to the people, and to their cattle, when local scarcity and dearness of food were felt. The fiscal result of forest administration at the two periods was as follows:—

	1887–88.	1893–94.
	Rx.	Rx.
Total forest revenue	1,124,000	1,723,000
„ forest expenditure	720,000	906,000
Surplus or Net Forest Revenue - Rx.	404,000	817,000

Thus the net forest revenue has more than doubled during the past six years.

POST OFFICE AND TELEGRAPHS.

Post Office.—The continued progress of the Indian Post Office may be seen from the following figures:—

	1887–88.	1893–94.
Number of post offices and pillar boxes	16,960	26,969
Length of postal routes in miles	66,960	116,607
Number of letters, packets, and newspapers passing through the post office.	274,000,000	370,000,000
Number of letters, packets, and newspapers finally undelivered by the post office.	707,000	769,000
Amount of money orders transmitted through the post office and telegraph by their customers.	Rx. 11,844,000	Rx. 19,600,000
Number of postal savings banks	5,966	6,358
Number of depositors at end of the year	261,157	574,050
Amount of deposits at end of the year	Rx 5,049,000	Rx. 7,819,000
Gross revenue of post office at end of the year	Rx. 1,214,000	Rx. 1,557,000
Gross expenditure at end of the year	Rx. 1,375,000	Rx. 1,558,000
Net Postal Surplus or Deficit - Rx.	Deficit, 161,000	Deficit, 1,000

The chief advances made by the post office during the six years, apart from the great growth of correspondence and other business, have been the multiplication of rural postmen for delivery of letters, &c. in villages; the extension of the parcel post and the value payable parcel system to several foreign countries; the remittance of salt revenue, land revenue, and rent through the post office; the extension of the British postal organisation into sundry Native States; the reduction of foreign postage from 5 annas to 2½ annas per half ounce; the extension of the use of post cards, which numbered 131 millions in the latter as

compared with 76 millions in the former year; the decrease in unpaid, as compared with prepaid correspondence, the unpaid letters, &c., being now 7 per cent. of all the postal articles, against 12 per cent. in 1887-88; the increase of registered letters, &c., by 40 per cent.; and the practical disappearance of the yearly deficit which in previous years had resulted from the working of the department. There is still room for immense further development, as the articles sent yearly through the post office come to only 1·29 per head of the total population, and 30·7 per head of those who are able to read and write.

Telegraphs.—The progress of the Indian Telegraph Department during the six years has been :—

	1887–88.	1893–94.
Number of telegraph offices	2,389	3,627
Number of miles of telegraph line	30,034	42,707
Number of miles of wire laid	86,890	134,255
Number of messages sent, exclusive of railway messages on railway business.	2,802,000	4,185,000
Telegraph revenue	Rx. 663,000	Rx. 791,000
Telegraph maintenance and working charges	Rx. 429,000	Rx. 530,000
Capital outlay of the year	Rx. 235,000	Rx. 225,000
Total capital outlay to end of year	Rx. 4,278,000	Rx. 5,660,000
Percentage of yearly surplus, of receipts over working charges, on capital cost.	5·4	4·6

The rates of charge for inland messages have not been altered since 1887–88. The chief changes of the period have been: messages are shorter and less expensive than they used to be, the average speed of transmission has improved, and the breaks of communication due to weather or defective plant are fewer; telegraphic communication in the new province of Upper Burma has been placed on a permanent footing; the increase in private messages has been much larger than the increase in State or Government messages; a permanent telegraph has been laid and maintained to Chitral, across a pass over 10,000 feet high, blocked by snow for many months of the year.

HOSPITALS AND SANITATION.

Hospitals.—The number and the work of hospitals and dispensaries has increased thus:—

	1886.	1893.
Number of hospitals and dispensaries	1,411	2,018
Number of in-patients treated	243,000	327,000
Total number of in-patients and out-patients	10,309,000	17,075,000

The number of successful vaccinations has advanced from 4,951,000 in 1886 to 6,716,000 in 1893; of this latter number two and a-half millions were babies under one year, and three million more were children between the ages of one and six years. Fevers are the great scourge of Indian populations; against fever, quinine is the best known remedy; cinchona gardens have for years been established on the Sikkim and the Nilgiri Hills; quinine is made now at both these places by a new and simple process; supplies of the medicine are sent thence to hospitals and sold to the public; and, during the last few years, thousands

thousands of pounds of quinine have been made up into 3 grain packets for sale to the public at local post offices at a cost of one pice (less than a farthing) per packet. In 1893–94 between three and four million of these packets were sold in Bengal alone.

Sanitation.—The work of procuring the regular registration of deaths and births has been diligently prosecuted throughout British India. The registration of deaths in the provinces of Berar, the Central Provinces, the Punjab, the North-West provinces, and Bombay, now yields results that are believed to be fairly accurate and trustworthy; while the registration of births in these provinces is improving. In Bengal, Madras, and Burma the vital statistics are as yet untrustworthy. Computations based on the census results of 1881 and 1891* have been held to justify an estimate that the average birth-rate of all India over a series of years is about 48 per thousand, and the average death-rate is about 39 per thousand. But the divergencies from these average rates in different years and in specified tracts are very great, apart from famine or dearth, which did not visit India in an acute form during the period under notice. Notable instances of unhealthiness, due, apparently, to climatic causes, occurred during the past six years. Berar, where the population are specially well off, and dearth is unknown, returned death-rates of—

25 per thousand in 1888.
42½ „ „ 1889.
40½ „ „ 1891.
29 „ „ 1892.

The years 1889 and 1891 were seasons of heavy or untimely rainfall. Again, the Central Provinces returned death-rates of—

28¾ in 1888.
43¾ „ 1889.
34 „ 1892.
27¾ „ 1893.

In the Punjab the death-rate of 1890 was 47 per thousand, or 15 per thousand above the rate of the preceding year. But the death-rate showed a most lamentable rise in the districts of Sealkot, Gujeranwalla, Gujerat, thus:—

	Death-rate per thousand.	
	In 1890.	Average of Five preceding Years.
Sealkot - - - - -	102	31
Gujeranwalla - - - -	83	33
Gujerat - - - - -	79	29

The mortality was caused by fevers, said to be due to the abnormally heavy rain, which had caused the soil to be water-logged. None of these three districts is traversed by a canal; all are fertile and prosperous tracts, and the position was not aggravated by unusually high prices of food.

The decrease in the death-rate, which was common all over India in 1893, can, only in small part, be ascribed to improved sanitation, or to any action on the part of Government. A similar decrease is apparent in the death-rates of the British troops in India, which were—

In 1888 -	14·84 per thousand.	In 1892 -	17·07 per thousand.
In 1889 -	16·60 „	In 1893 -	12·61 „

Among

* Page 282 of Mr. Baines' Census Report for India, published in July 1893.

Among the native population the great majority of deaths are ascribed to fever in all years; but the death-rate from zymotic diseases shows great variations, due, apparently, in great measure to climate, and the reported cholera deaths for all British India were—

269,862 in 1888.	582,430 in 1891.
417,017 „ 1889.	724,015 „ 1892.
291,202 „ 1890.	216,827 „ 1893.

In municipalities there has been decided advance in sanitary, improved water supply has been provided during the past six years to several cities and towns, including Allahabad, Agra, Cawnpore, Benares, Delhi, and Rawul Pindee. Drainage schemes are in progress at Benares and some other cities. Large additions have been made to the water supply of Bombay and Calcutta; but the water supply and sanitary arrangements of Madras are still defective. In Bombay and Calcutta the death-rates are now considerably below the Indian average, and are nearer the rates in well-managed cities of Europe. The recent death-rates in these cities have been :—

During	Death Rate per thousand in		
	Bombay (Population, 821,000).	Calcutta (Population, 681,000).	Madras (Population, 452,000).
1889 - - -	25·7	28·7	42·8
1890 - - -	25·3	29·8	37·9
1891 - - -	29·0	31·5	52·6
1892 - - -	32·2	29·6	46·0
1893 - - -	28·1	29·5	41·0

Municipal authorities are everywhere paying increased attention to the sanitary affairs of their towns. In the North-Western Provinces, the Central Provinces, and Bombay, Acts have been passed providing for the sanitary improvement of rural areas and villages; in Bengal provision has been made by law for effecting the drainage of water-logged tracts; and in the North-Western Provinces considerable sums have been devoted to improving the surface drainage of water-logged tracts traversed by the Ganges Canal. Rural councils and boards are giving attention to sanitary affairs; but funds for sanitary undertakings in villages are scanty, and the people move slowly in these matters.

Much attention has been given to improving the sanitary condition of pilgrims and of the crowds at great places of religious resort. Precautions taken at the Hardwar and Allahabad festivals have resulted in greatly improved health among the multitudes who resort thither yearly. At Pooree in Orissa and on the pilgrim roads thither there has been some advance, but matters are not yet satisfactory. Arrangements are in progress for making the Red Sea voyage less trying for pilgrims to the holy places of Islam; and it is hoped that in time matters will be more favourable for pilgrims at the Turkish quarantine station in the Red Sea, and in the Hedjaz.

EDUCATION.

The general lines on which State and aided education is conducted have not been changed during the period under review; but special attention has been given to, and some advance has been achieved in respect of, primary education, girls'

girls' education, technical education, and physical training. The main educational statistics of 1887-88 and 1893-94, are thus compared:—

	1887-88.	1893-94.
Total number of colleges	125	154
„ „ college students	13,189	18,184
„ „ secondary schools	11,340	10,796
„ „ „ scholars	519,784	575,407
„ „ primary schools	120,128	135,720
„ „ „ scholars	2,911,599	3,449,002
„ „ all institutions	133,125	147,297
„ „ all scholars	3,460,847	4,066,235
Of all students, young men and boys	3,182,643	3,691,292
„ „ young women and girls	278,201	374,943
Students obtaining university degrees in arts and science	1,091	2,590
„ passing the university matriculation	5,577	5,162
„ obtaining degree or certificate in medicine	550	788
„ „ „ engineering and surveying	311	544
„ „ „ law	442	294
„ „ „ agriculture	—	115
„ „ „ teaching	2,086	3,251
Number of Hindoo students at all institutions	2,185,497	2,732,186
„ Moslem students	564,013	905,571
„ Native Christian students	73,038	99,887
„ European and Eurasian	23,013	27,975
Total expenditure on university education	Rx. 292,178	Rx. 355,834
„ „ secondary education	„ 862,712	„ 1,063,613
„ „ primary education	„ 838,890	„ 1,032,394
„ „ technical and special education	„ 137,068	„ 185,474
„ „ direction and inspection	„ 205,451	„ 231,830
„ „ scholarships	„ 67,532	„ 74,552
„ „ buildings and miscellaneous	„ 215,554	„ 284,274
Grand total of expenditure	„ 2,619,128	„ 3,227,970
Contributions from general revenues	„ 729,357	„ 898,055
„ „ municipal and local funds	„ 593,587	„ 698,378
„ „ private sources	„ 566,744	„ 681,010
„ „ school fees	„ 729,409	„ 950,527
Percentage of boy scholars to boys of school-going age	20·0	20·82
„ girl scholars to girls of school-going age	1·8	2·19

Thus the number of all scholars has increased during the six years by 17 per cent., the number of girls at school by 35 per cent.; the number of Moslem scholars by 60 per cent.; while the expenditure from the general revenues and the total expenditure on education have, in each case, increased by 23 per cent. The improvement in educational results has been common to all parts of India, except the North-Western Provinces and Oudh, where the number of schools and scholars has decreased during the last few years. The Bombay University alone grants degrees in agriculture; but in every province there has been some advance in the teaching of, and the number of scholars in, agriculture, elementary science, drawing, veterinary science, as well as in the attendance at industrial and technical schools. During the past six years there has been an important increase in the number of native drivers of engines, on locomotives, on steamers and launches, and in factories; the railway workshops and the shipbuilding yards at the large ports train yearly a considerable number of fitters and machinists; nearly all branches of printing work are now in the hands of natives. Some few educated Indians have turned their attention to dairying, tea and coffee growing; but the number of educated natives who engage in farm or agricultural work is extremely small. Effort is being made to make instruction in the rudiments of agricultural art, and in the simplest principles of sanitation part of the course at the better primary schools. Increased attention has also been given to physical training; schoolboys and teachers are adopting outdoor games more readily than heretofore; and some of the more advanced Indian educationalists have urged their fellow countrymen to insist on systematic physical training for all boys who are at secondary schools or colleges. The latest returns show that 11 per cent. of all the scholars, or about 450,000 boys and girls, are learning English. The census of 1891 showed that over the whole of India 13 per cent. of the male inhabitants, and about ½ per cent. of the women, over 15 years of age could read and write, while

4¾ per cent. of the boys and ⅓ per cent. of the girls under 15 years of age were returned as "learning."

Literature.—The latest return shows that the number of books and publications registered in India during 1893 was 7,505, of which 6,652 were in Eastern vernacular and classical languages. The majority of publications were educational (including books on languages), religious, and poetical (including dramatic). In 1887 the total number of registered publications was 8,645; but the total fluctuates from year to year. The number of vernacular newspapers and periodicals published during 1893–94 was 457, as compared with 395 in 1887-88. The largest recorded circulation was 20,000 copies, for a Bengali weekly journal. Newspapers and books were published in 19 different vernaculars of India, besides Pali, Sanscrit, and Arabic.

FINANCE.

Exchange Difficulty.—The years now under review have been marked by considerable fluctuations, and a great fall in the value of silver. India has to meet a yearly liability of about 18,000,000*l.** in gold in England; but the amount varies with the requirements of the railway companies. India collects her revenue in silver rupees, and has to meet her sterling liabilities by selling in London bills on India for rupees. The fluctuations in the average rate at which Council Bills were sold since 1887-88 have been:—

Average Yearly Rate at which Council Bills were Sold.

1887–88 - 1*s.* 4·898*d.* per rupee.	1891–92 - 1*s.* 4·733*d.* per rupee.
1888–89 - 1*s.* 4·379*d.* „	1892–93 - 1*s.* 2·985*d.* „
1889–90 - 1*s.* 5·566*d.* „	1893–94 - 1*s.* 2·547*d.* „
1890–91 - 1*s.* 6·089*d.* „	1894–95 - 1*s.* 1·100*d.* „

In 1887–88 it cost 218 millions of rupees to meet such of India's sterling payments, as were defrayed by bills drawn on India; in 1890-91 it cost 212 millions of rupees; and in 1894–95 it cost 309 millions of rupees. Besides the enhanced cost of remitting money to meet sterling liabilities, the fall in the gold value of silver throws on the Indian Treasury charges for exchange compensation to public servants and for paying British soldiers that amount in the present year to upwards of 26 millions of rupees. Thus the present rate of exchange (about 13*d.* for the rupee) caused a total yearly charge upon Indian revenues of about 156 millions of rupees over and above what it would have cost at the rate of exchange (2*s.* to the rupee) which obtained in former years.

Income and Expenditure.—Partly by reason of growing expenditure in the military and civil departments, but mainly in consequence of the increased charge for exchange, the gross yearly expenditure of India has advanced rapidly during the six years. In 1887–88 the total charges against revenue were Rx. 80,788,000; in 1893-94 they had reached Rx. 92,112,000. One-third of this increase, Rx. 11,524,000, occurred under "exchange;" of the remainder (Rx. 7,505,000) about Rx. 3,713,000 was under the head of "Railways," which, however, yielded a still larger increase of receipts. The remaining

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* *Note.*—The precise average of the six years 1888-94 was 17,932,710*l.*, and of the three years 1891-94, was 18,198,857*l.* The chief heads of the charge for 1893–94 were:—

Chargeable to Revenue:	£.
Interest on Railway Debt, and annuities in purchase of railways	5,744,000
Interest, other debt	2,505,000
Army, including pensions and furlough allowances, &c.	3,613,000
Military Stores	917,000
Civil Departments, including India Office, pensions, leave allowances, &c.	2,652,000
Civil Department Stores	396,000
Total	£. 15,827,000
Not Chargeable to Revenue:	
Stores for State railways and irrigation works	725,000
Grand Total	£. 16,552,000

remaining increase was met by the gradual growth of the old sources of revenue. The salt tax was (as has been stated) raised 25 per cent. in 1888, yielding Rx. 1,750,000 of additional revenue. The only new taxes imposed during the six years were: (1) the cess for meeting the cost of village officials (patwaris), which had been remitted in 1882–83, but was reimposed in 1889–90, and yielded Rx. 250,000 a year; and (2) an import duty on petroleum, which yielded Rx. 263,000 in 1893–94. The net result of the Indian finance during the six years was:—

	Surplus.	Deficit.
	Rx.	Rx.
1888–89 - - - - -	37,000	—
1889–90 - - - - -	2,612,000	—
1890–91 - - - - -	3,688,000	—
1891–92 - - - - -	468,000	—
1892–93 - - - - -	- - - -	833,000
1893–94 - - - - -	- - - -	1,547,000
Net surplus on the six years.	Rx. 4,425,000	

The surplus was devoted to the construction of railways, and thus obviated loans to a corresponding amount. During the six years the famine surplus, which was intended to meet the cost of relief in years of famine, amounted to Rx. 7,140,000, and was spent thus:

	Rx.
On actual famine relief - - - - -	176,000
On constructing protective railways and irrigation works.	2,942,000
On reduction or avoidance of debt - -	1,662,000
On meeting the net charge on account of two protective railways, the Bengal-Nagpur, and the Indian Midland Railway - - -	2,362,000
	7,142,000

In 1894–95 the increasing loss by exchange compelled the Government of India to forego, or absorb into the ordinary revenue, more than two-thirds of the famine surplus, and also to impose import duties which, at the rate of 5 per cent. *ad valorem*, will yield about Rx. 3,000,000. By these means it is hoped that a moderate surplus will be secured in the years 1894–95 and 1895–96.

Closing of the Mints.—When the fall in the gold value of silver began to throw heavy charges on the Indian Exchequer, and also to have a serious effect on India's trade, the Government of India urged that effort should be made, by international agreement, to restore silver to common use as money among the chief nations of the world. America was believed to be in favour of such a measure, which was also supported by a considerable party in the United Kingdom, in France, and in Germany. Two international conferences were held, one at Paris and one at Brussels. Inquiry was made into the subject by a Royal Commission in London and by similar bodies in other countries. But there was no prospect of such an international agreement as the Indian Government desired. Meanwhile, though the gold value of silver declined, the downward tendency was partially arrested by two causes, namely (1) the continuance of the arrangement whereby the Indian mints were open to coin into rupees all silver tendered to them; and (2) the monthly purchase of a large quantity of silver bullion by the United States Treasury. The Government of India, hopeless for the time of any bi-metallic agreement among the nations, and foreseeing that the United States would shortly cease to purchase silver, proposed to close the Indian mints to the free coinage of silver, and so

gradually to prepare the way for the adoption of a gold standard in India. After taking the advice of a committee of financial and economic experts, Her Majesty's Government accepted the proposal of the Government of India, and the Indian mints were closed to the free coinage of silver on the 26th June 1893. At the end of October 1893 the American purchases of silver for the United States treasury were stopped. The price of silver fell largely during the autumn, and so also did the gold value of the rupee; and both, with some fluctuations, fell further during the year 1894. But since the closing of the Indian mints to free coinage the gold value of the rupee has generally ruled from 1½*d.* to 2*d.* (or from 12 to 16 per cent.) higher than the intrinsic value of the coin; whereas in previous years the exchange value of the rupee had varied, more or less closely, with its intrinsic value. The closing of the mints was followed by some disturbance of the trade in opium and cotton goods between India and China; but before the end of 1894 this traffic had settled down into the new circumstances.

National Debt.—The national* debt of India and the assets to be set against that debt, at the two periods, stood thus:—

	1886-87 (end of).	1893-94 (end of).
Debt	£. 84¼ milllions	£. 108¼ millions
	Rx. 92¾ milllions	*Rx.* 105½ millions
TOTAL	177 millions	213¾ millions
Assets, being Railways and Irrigation Works on which borrowed money was spent, and loans to public bodies	* 133 millions	† 185½ millions
Net Excess of Debt above Assets to be set against that Debt	44 millions	28¼ millions

* The details of the assets shown as existing against the debt of India in March 1887 are:—

Expended on railways constructed by the State	Rx. 59,183,000
„ purchase of railways	£. 45,204,000
„ irrigation works	Rx. 25,381,000
„ loans to Native States and Municipalities	„ 7,394,000
	137,162,000
Deduct unspent capital of Railway Companies	£. 3,830,000
	133,332,000

† The corresponding details for March 1894 are:—

Expended on railways constructed by the State	Rx. 80,754,000
„ purchase of guaranteed railways	£. 59,236,000
„ irrigation works	Rx. 29,693,000
„ loans to Native States and Municipalities	„ 10,994,000
Advances to Railway Companies	£. 4,863,000
	185,540,000

Interest on the national debt of India is now payable at the rate of 3½ per cent. In 1888 was completed the transaction whereby 53¼ millions of sterling 4 per cent. debt were converted into 3½ per cent. stock, thus securing a reduction of 266,000*l.* in India's yearly expenditure. In 1894 a similar operation was completed in respect to Rx. 90 millions of rupee 4 per cent. debt., thus securing a further saving of Rx. 450,000 in the yearly charge for interest.

At

* *Note.*—In the figures here given for the National Debt of India are not included—

(*a*) the temporary loan contracted in London at the end of 1893	£. 6,000,000
(*b*) other obligations, such as deposits, &c., in India	Rx. 18,558,000
TOTAL	24,558,000

Against these temporary and fluctuating obligations may be set the cash balances of 31 March 1894, amounting to

	Rx. 25,566,000 in India.
	£. 1,300,000 in London.
TOTAL	26,866,000

At the present time (May 1895) India's 3½ per cent. sterling stock is quoted at 115; India's 3 per cent. sterling stock is quoted at 106; and India's 3½ per cent. rupee paper is quoted in India at 107. The Secretary of State can raise sterling loans for railways at 3 per cent., and can obtain temporary loans on lower terms.

Paper Currency.—Government currency notes constitute, as in 1887–88, the only paper money in British India. The circulation of these notes has risen from Rx. 16½ millions in March 1888 to Rx. 30½ millions in March 1894. In the year 1890 the Government were empowered by law to invest Rx. 8,000,000, instead of Rx. 6,000,000 as theretofore, in Government securities. The full permissible amount has been invested; and the currency reserve of cash stood in March 1894 at Rx. 22,700,000. The disbursements of the currency department during the year were Rx. 57,600, and the net profits were Rx 270,000.

PUBLIC WORKS.

Railways.—The advance made in railway communications and traffic during the six years has been as follows:

	1887–88.	1893–94.
Miles of railway opened on 31 March	14,383	18,500
Mileage under construction or sanctioned	2,487	1,922
Total outlay on railways	Rx. 187¼ millions	Rx. 241½ millions.
Average cost per mile of open line	Rx. 12,500	Rx. 12,600
" " standard gauge	Not given	Rx. 16,100
" " metre gauge	Not given	Rx. 7,600
Number of passengers carried	95⅓ millions	135½ millions.
Tons of goods carried	20¼ millions	28¾ millions.
Gross earnings of all railways	18½ millions	Rx. 24 millions.
Working expenses of all railways	9 1/16 millions	Rx. 11⅓ millions.
Net earnings of all railways	9⅓ millions	Rx. 12⅔ millions.
Average return on capital	5·12 per cent.	5·46 per cent.
*Loss to the State on all railways	Rx. 1,189,000	*Rx. 1,597,000

* *Note.*—The loss on the railway account in 1893–94 is correctly given at Rx. 1,597,000. But it should be stated that Rx. 360,000 of the railway charges were spent on sinking funds, which will redeem the capital of certain purchased lines at the expiry of the period for which the annuities run. This outlay is therefore of the nature of a repayment of capital; and the yearly loss to the Indian Exchequer on the railway account in 1893-94 is thus reduced to Rx. 1,237,000.

The loss to the State on railways, that yield average net earnings of nearly 5½ per cent. a year, is due: (1) to the agreement under which guaranteed railways enjoy one-half the surplus earnings above 5 per cent.; (2) to the liability to pay guaranteed interest in gold; and (3) to the fact that some of the guaranteed lines, such as the Indian Midland and the Madras railways, fall far short of earning their guaranteed interest, and that the 5½ per cent. is computed on the capital cost of the *open* lines, while the capital spent on the 1,922 miles under construction is, as yet, yielding no return. Among the most paying of the shorter lines are the Jodpore line, constructed by a Rajputana chief, and the Tarkessur line, financed and built by an Indian Company. Among the more important lines completed or begun during the six years are—

The East Coast Railway from Madras to Calcutta.
The Mandalay Railway, with extensions towards Bhamo.
The Indian Midland Railway.
The Bengal-Nagpur Railway.
The Assam-Bengal Railway.
The North Western Railway Frontier Extensions.
The Southern Mahratta-Mysore Railway.
The Delhi, Ambala, and Kalka Railway.
The Godhra and Rutlam Railway.

The guaranteed railways, purchased by the Government during the six years, at the end of the guaranteed term were the Oudh and Rohilkund, and the South Indian railways. Fares and rates have been lowered on some lines since 1888; passenger rates are down to 2 pie (less than two-thirds of a farthing) per mile; and goods rates for long distances are as low as 4 pie per ton (less than 1¼ farthings) a mile. Progress is being made with rendering third-class carriages, and stations, more convenient for Native, especially female Native, passengers. Although Indian railways involve—chiefly by reason of the fall in the gold value of silver—a yearly loss to the Indian Treasury, yet they do an immense service to the people, the country, and the Government; it is computed that any corresponding movement of passengers, goods, and troops would have taken 15 times as long, and would have cost five times as much in the era before railways. Without railways India's export trade could never have reached its present importance. But the greatest boon conferred by the railways is the facility given for internal traffic; prices of food and other commodities (save bulky articles like coal) are now more nearly equalised all over the country; when crops fail and prices rise, supplies of food are poured into the distressed tract by railways in the natural course of trade; the farmer gets a fair price for his produce even in bumper years; and it cannot happen, as used to occur 20 years ago, that food grains are at famine prices in one part of a province, while in another part—300 or 400 miles away—the same grains are selling at one-fourth of the price ruling in the distressed tract.

Canals.—The progress and results of irrigation works, for which capital accounts are kept, may be thus compared for the period 1888 to 1894:—

	March 1888.	March 1894.
Total capital outlay on large and small irrigation works for which separate accounts are kept.	Rx. 31¼ millions	Rx. 35¾ millions
Area irrigated by these works	*7,590,000 acres	*9,383,000 acres
Gross irrigation revenue	Rx. 2,017,000	Rx. 2,740,000
Expenses of working and maintenance	Rx. 948,000	Rx. 1,142,000
Proportion of net yield to capital cost of all works	3·4 per cent.	4·4 per cent.
Length of main canals in miles	Not precisely given for that year.	14,114
„ minor channels in miles		26,119

* These figures do not give the area irrigated by *all* Government works, but only that irrigated by Government work for which capital accounts are kept.

The more important new irrigation works undertaken or prosecuted during the six years have been:—

The Chenab Canal, which is to irrigate parts of the rainless plain in the west of the Panjab, whither many thousands of families of cultivators are migrating as canal water becomes available.

The Periyar project for impounding a great supply of water for irrigating the Vaigai plain in the Madura district.

The Rushikulya project for irrigating a large tract in Ganjam on the north coast of Madras.

Improvements and extensions of the Sind, the Sutlej, the Jumna, and the Lower Ganges Canals.

Most of the great canals of northern India and of the Madras Presidency have been and are financially successful, and yield a net revenue of more than four per cent. on their cost. The non-paying canals are the Orissa and Sone Canals in Bengal, which cost the country year by year Rx. 200,000 above their earnings; the Tungabhadra Canal in Madras, which has never earned a dividend since it was opened 20 years ago; the Betwa Canal, which is a famine protective work to relieve the Jhansi country in years of drought; and the Bombay tanks and canals, which barely yield a dividend of one per cent. on their capital cost of 2½ millions.

Buildings

Buildings and Roads.—Much of the expenditure on buildings and most of the outlay on roads are managed by local authorities under the different Local Self-government Acts in the several provinces. The outlay for these purposes, apart from military works, was :—

	Rx.
In 1887–88	4,088,000
In 1893–94	4,484,000

Of the latter sum the details are :—

Buildings	1,217,000
Roads, bridges, paths, &c.	2,088,000
Miscellaneous works	229,000
Establishment, tools and plant	950,000
	Rx. 4,484,000

TRADE AND MANUFACTURES.

Trade.—The exchange of commodities between the different countries that make up India has increased, as facilities for communication by railways, canals, roads, river steamers, and coasting vessels. Mention has been made of the increased traffic by railway. Accurate statistics have not been completed of India's internal traffic by road and river. The totals of the external and coasting trade of India, including Government stores and treasure, at the two periods are :—

	1887–88.	1893–94.
	Millions of Rx.	Millions of Rx.
Value of India's exports by sea	92	110½
Value of India's imports by sea	79	95½
Value of total foreign trade by sea	171	206
Value of foreign trade across the external land frontier	9¼	8
Value of total coasting trade	60¾	68½
GRAND TOTAL	241	282½

In the year 1893–94 the importations of cotton goods were unusually heavy; the rice and wheat exports were low, and the oilseeds exports were nearly 50 per cent. larger than in any previous year. The chief changes in the staples of India's external trade during the past six years have been a shrinkage in the exports of wheat and opium, and an increase in the importations of cotton goods and petroleum, with a large advance in the exports of oilseeds, tea, jute, cotton goods, and hides. The net importations of treasure into India were Rx. 13,318,000 in 1887–88; they ranged from Rx. 19,811,000 in 1890–91 to Rx. 10,050,000 in 1892–93, and averaged Rx. 14,460,000 a year for the period 1888–94; towards the end of that period the closing of the mints took effect, and the net imports of treasure during the eleven months ending with February 1895 were only Rx. 668,000.

Manufactures.—The factory industry of India, as distinguished from village and home industries, has received little development in India, as compared with the greatness of her resources and of her requirements. Still there has been some

some advance during the past six in the cotton, jute, rice, and timber industry, thus :—

	1888.	1894.
Number of cotton mills	89	136
working looms	16,736	29,362
working spindles	2,190,376	3,538,577
employing hands	72,000	130,000
Number of jute mills	24	28
working looms	7,134	9,590
working spindles	135,593	192,688
employing hands	30,000	69,000
Number of rice-cleaning mills	43	58
Number of timber saw mills	41	69
Number of paper mills	4	8

In 1891 the Indian Factory Law was amended, with the result that its provisions were extendible to factories employing 20 hands; that the minimum and maximum ages of child labourers were raised by two years to 9 and 14 years respectively; that the time of work for women was limited to 11 hours a day; that a time of rest at mid-day was prescribed for all hands. Yearly reports by factory inspectors are now published; the reports for 1893 showed 715 factories, employing 346,000 hands, of whom 50,000 were women, and 20,000 were children. The inspectors report that the provisions protecting labourers are generally observed; 32 persons were convicted during the year of breaches of the Factory Law.

Minerals.—The progress in raising coal, though far less than the advance made by Japan, has been considerable. No coal has yet been found in Western India, or near the coast. The new coal sources worked during the six years have been in Salt Range of the Punjab and in Upper Burma; neither of these sources, as yet, yields any large quantity of good coal. The coal sources of Upper Assam, of Umaria in Bhagelcund, and of Singareni in the Nizam's territory, have been much developed since 1888. The total output of all Indian coal mines was 1,388,000 in 1887, and had reached 2,529,000 tons in 1893; while the coal imported into India fell during the same period from 765,000 tons to 648,000 tons. Though India possesses vast deposits of rich iron ore, there is as yet only one establishment in India for iron smelting; these ironworks at Barrakur in 1893 turned out 18,000 tons of pig iron and 4,000 tons of castings. There has been some further development of the tin industry in the south of Burma; but the business is not so active or so successful as in the States lower down the Malay peninsula. Gold is being worked to good profit in Mysore; and the value of the output has risen from Rx. 283,000 in the five years ending in 1888 to Rx. 1,450,000 in the year 1893, yielding to the Mysore State a royalty of Rx. 77,000. Gold prospecting in the Madras Presidency, in the Nizam's territory, in Chota Nagpore, and in Upper Burma has, so far, been unsuccessful. Trial borings for petroleum have been put down at different places in Baluchistan and in the Salt Range. In 1890 over 100,000 gallons of inferior oil were raised in Baluchistan and used in locomotives. But the supply was not constant, and these oil sources are not now worked. The oil field of Upper Assam has not yet been exploited to advantage, though the oil is reported to be good, and concessions have been held there for some years. The output of the Burma oil fields has risen from 2¾ million gallons in 1888 to 10¼ million gallons in 1893. The consumption of petroleum in India has advanced,

advanced, notwithstanding the tax on imported oil, from 30¼ million gallons in 1887-88 to 83⅜ million gallons in 1893-94. So India, as yet, produces only one-tenth of the petroleum she consumes.

Agriculture.—Much attention has been given during the past six years to matters connected with agriculture, which is by far the most important industry in India. Heretofore agricultural statistics for Bengal have not been available; but now approximate figures can be given for the whole of British India, thus—

	Millions of Acres.
Net area cropped during the year 1893–94 - - -	197·4
Of which were cropped more than once - - - -	28·1
Making the total area of crops - - - - -	225·1
Of which were irrigated - - - - - - -	26·7
Area of current fallows - - - - - - -	27·0

The area under some of the staple crops was returned for the year 1893–94, thus:—

	Millions of Acres.
Area cultivated with rice - - - - - - -	68·4
„ „ wheat - - - - - -	22·2
„ „ millets of different kinds - - -	38·5
„ „ other food crops, including pulses -	47·2
TOTAL of Cereals and Pulses - -	176·3
Area cultivated with oilseed - - - - - -	14·8
„ „ sugar-cane - - - - - -	3·0
„ „ cotton - - - - - - -	10·5
„ „ fibres other than cotton - - -	2·9
„ „ tobacco - - - - - -	1·2
„ „ fodder crops - - - - -	1·9
„ covered by orchards and vegetable gardens - -	2·7
Miscellaneous food crops - - - - - - -	3·1

If we reckon tea, coffee, and sugar as food crops, then the total area under food crops in 1893–94 was 185½ million acres, or 82 per cent. of the total area of crops in British India.

In 1889–90 an expert agricultural chemist, Dr. J. A. Voelcker, was deputed to India to advise upon the best means of applying the teachings of agricultural chemistry to, and of improving, Indian agriculture. After spending 13 months in examining the facts of Indian agriculture and attending two agricultural conferences, Dr. Voelcker presented a report, making a series of recommendations either for organised inquiry on specific points, or for definite action in certain directions. He held that in many parts there was little that could be improved in Indian agriculture in present circumstances; and he advised that attention should be given to the diffusion of agricultural education, to the increase in the supply of water to dry tracts, to the encouragement of arboriculture, and the due utilisation of existing forests for the benefit of the people, to increasing the supply of manure, to furthering the growth of fodder crops, to improving the breed of cattle, and to scientific inquiries in chemico-agricultural matters. Dr.

Voelcker's scheme of work has been accepted by the Government. The Agricultural Departments of the several provinces are gradually adopting the advice given; and already something has been accomplished in more than one of the directions indicated. A bacteriological laboratory has been established for investigating the causation and the possible prevention of Indian epizootic diseases. Two agricultural chemists have been engaged for carrying out some of the inquiries that were suggested by Dr. Voelcker, and to assist in training students who shall be hereafter able to impart sound agricultural education.

LOCAL SELF-GOVERNMENT.

Municipalities.—The progress of municipal affairs since 1887-88 may be exhibited in figures thus:—

	1887-88.	1893-94.
Number of municipal cities and towns	726	748
Population of municipal cities and towns	14,208,000	15,643,000
Municipal Receipts:	Rx.	Rx.
From octroi duties	752,000	941,000
„ other taxation	1,252,000	1,622,000
„ other sources	751,000	1,057,000
„ loans	702,000	978,000
TOTAL Rx.	3,457,000	4,598,000
Municipal Expenditure:		
On public health	1,466,000	2,358,000
„ „ convenience, including streets and roads	501,000	
„ „ safety	304,000	339,000
Interest on and repayment of debt	272,000	382,000
General, including collection costs and miscellaneous	776,000	1,447,000
TOTAL Rx.	3,319,000	4,527,000

In almost every municipality, from one-half to two-thirds of the members of the governing body are elected by the ratepayers, and from two-thirds to nine-tenths of the members in the different provinces are natives of India. The interest shown by the townsfolk in municipal elections varies greatly; the proportion of the electors who voted at contested municipal elections in 1893-94 ranged in different towns from 5 per cent. to 99 per cent. of the voters on the electoral roll. A large number of the chairmen of municipal councils are Indians; the bulk of the municipal work of the country is done by Indians; and the non-official members are more regular in their attendance at council and committee meetings than the official members. On the whole, municipal business is done fairly well, and is improving. Members receive no salaries; and there are no reports of corruption or jobbery. Municipal councils are slow to impose fresh taxation when it can be either avoided or postponed. But the way in which many municipalities have during the past voted for important works of water supply, drainage, and sanitation show that the governing bodies do not hesitate to sanction really necessary and useful undertakings. Municipal administration during the period 1888-94 has been specially marked by the prosecution and completion of schemes for improving the water supply of cities and towns.

District Boards.—In almost every one of the 250 districts, or administrative units, into which India is divided, there is now established a district board with subdivisional boards for divisions of districts. Except in Burma and in the Punjab frontier districts the majority of members on all these boards are chosen by the people, either directly or through representative men. The boards have charge of rural roads, bridges, hospitals, and rest-houses; in some provinces they also have charge of primary schools. They administer the local taxes, and in some cases they decide at what rate those taxes are to be levied. The

The improvement of the sanitation and water supply of villages has, in most provinces, been committed to the district and local boards. Something has been done towards improving and protecting the purity of the rural water supply; but, partly from lack of funds, and partly from want of sympathy in the work, local boards have not as yet been active in promoting village sanitation. Acts and rules on the subject have been passed; but improvement must be slow and gradual, as the people themselves, or their local leaders, are educated to appreciate sanitary reform. The provincial Governments report for the most part that the work of the district and local boards in 1893–94, and the improvement they had achieved, were generally creditable to those bodies; though there was room for much further improvement, especially in the matter of sanitary progress.

Port Trusts.—The Port Trusts, in whose hands are placed the administration of harbour and foreshore affairs at all the chief ports, enjoyed during the year 1893–94 an income of Rx. 2,250,000. The governing bodies of these Trusts consist of representative British, Indian, or other merchants, with a few local officials. They give satisfaction to the commercial public and to the shipping; and their efforts are directed to keeping the port and harbour dues as low as possible, compatibly with the efficient management and conservancy of the ports under their care. In Bombay, Rangoon, Karachi, and Chittagong, and at most of the smaller ports, the Port Trusts have done their work well, and dues have been kept low. During the past six years a new dock has been opened at Bombay; the Madras Harbour has been practically completed at a cost of Rx. 1,238,000, and it remains to be seen how it will stand; and large new docks have been finished at Calcutta at a total cost of Rx. 2,874,000. As yet the Calcutta Docks have earned little revenue, and extra dues, yielding Rx. 117,000 a year, have had to be imposed on shipping frequenting Calcutta, to meet the interest on the capital cost of these works.

ARMY.

The total strength of the Army in India at the two periods was :—

	31 March 1894.	31 March 1894.	
		Units.	Men.
British Cavalry	-	9 regiments	5,775
Artillery	-	88 batteries and companies	13,257
Engineers	-	-	209
Infantry	-	52 battalions	54,622
	69,910		73,863
Indian Cavalry	-	34 regiments	21,234
Artillery	-	9 batteries and companies	1,971
Engineers	-	-	3,495
Infantry	-	122 battalions	105,063
Other Corps, including Hyderabad Contingent.	-	-	18,300
	148,747	-	150,063
GRAND TOTAL British and Indian Troops	218,926	-	223,926
Number of Enrolled Volunteers	18,388	-	28,889
„ Native Army Reservists.	-	-	13,316
„ Volunteer Reservists	-	-	1,680
TOTAL of Enrolled and Drilled Reserves	21,443	-	43,885

Some of the principal measures of Army equipment and administration during the six years were the arming of British troops with a magazine rifle, of Indian troops with the Martini-Henry rifle, of the Field Artillery with new breech-loading guns; the provision of a certain number of machine guns; the organisation of a reserve of officers and of a body of Native reservists; the completion of the mobilisation arrangements, and of a specified supply of transport animals and appliances; the substitution of seven Burma battalions of troops recruited from northern India in place of seven regiments manned from unwarlike races of southern India; the organisation of the Hindustani infantry regiments as class regiments instead of mixed regiments; the enhancement of the pay of Native Cavalry troopers, followed in 1895 by the enhancement of the pay of Native Infantry soldiers; the practical completion of the special defence works begun about eight years ago. In 1894 orders were issued for the conversion of the three presidential Armies of Bengal, Madras and Bombay, into four Armies, each under a Lieutenant General, and all subordinate to the Commander-in-Chief in India. A separate command, directly under the Commander-in-Chief, is retained in Burma. The responsibility of the Local Governments of Madras and Bombay for Army administration has now ceased.

The military forces at the disposal of the British Government in India have been materially enhanced by the contingents which some of the larger Native States have voluntarily undertaken to equip and maintain in complete efficiency, for the service of Her Majesty when need arises. These Imperial Service Troops are armed and equipped like regular troops of the Indian Army; they are commanded by Indian officers, and periodically inspected by British officers. Contingents from these troops have joined with British forces at camps of exercise, and have fought gallantly side by side with soldiers of the Punjab Army. The numbers of Imperial Service Troops already in a state of efficiency are approximately—

	Officers and Men.	Horses, Mules, and Camels.
Mountain artillery	143	67
Cavalry	7,740	7,510
Camel Corps	499	469
Infantry	7,133	—
Transport corps	1,042	1,473 (besides 595 carts).
TOTAL	16,557	9,519 (and 595 carts).

The cost of the Indian Army at the two periods may be thus stated:—

	1887-88.	1893-94.
	Rx.	Rx.
Army Expenditure in India:		
Effective	14,244,000	15,026,000
Non-effective	861,000	939,000
Army Expenditure in England:		
In Sterling	3,741,000	4,418,000
Exchange on Sterling	1,572,000	2,871,000
Military Works	1,232,000	1,181,000
Special Defence Works	456,000	325,000
	22,106,000	24,760,000
Deduct, Military Receipts	1,101,000	896,000
NET EXPENDITURE	21,005,000	23,864,000

Of

Of this net expenditure the share due to exchange, or to the fall in the gold value of silver, was :—

	1887–88.	1893–94.
	Rx.	Rx.
Exchange on Army Sterling Expenditure - - -	1,582,000	2,839,000
„ Special Defences and Military Works -		74,000
„ Soldiers' Pay - - - - - - -	437,000	852,000
Compensation to Officers for Loss by Exchange - -	—	277,000
TOTAL - - -	2,019,000	4,042,000

Thus in the increase of military expenditure during the six years, Rx. 2,023,000 out of Rx. 2,859,000, or 70 per cent. of the whole, was caused by the fall in exchange.

CHAPTER I.

ADMINISTRATION AND LEGISLATION.

ADMINISTRATION.

In the Home Administration the Right Honourable the Earl of Kimberley continued to be Secretary of State until 11th March 1894 when the Right Honourable H. H. Fowler, M.P., assumed charge of the office. Sir Arthur Godley, K.C.B., continued to be Permanent Under Secretary of State throughout the year. Mr. George W. E. Russell, M.P., remained in office as Parliamentary Under Secretary of State, until succeeded on 11th March 1894, by the Right Honourable Lord Reay, G.C.S.I., G.C.I.E. There were no changes in the Council of India.

The Marquis of Lansdowne, G.M.S.I., G.C.M.G., G.M.I.E., continued to be Governor General of India until 27th January, when the Right Honourable the Earl of Elgin and Kincardine, G.M.S.I., G.M.I.E., assumed the office.

Mr. James Westland, C.S.I. (now Sir James Westland, K.C.S.I.), took his seat on 27th November 1893, as ordinary Member of Council in place of Sir David Barbour, K.C.S.I., and on 30th idem Sir Antony P. MacDonnell succeeded Sir Philip Hutchins, K.C.S.I. There were no other changes in the Council of the Governor General.

Bengal.

Sir Charles Elliott, K.C.S.I., continued to be Lieutenant Governor of Bengal until 31st May, when he obtained leave on medical certificate. In his absence Sir Antony MacDonnell, K.C.S.I., was appointed to officiate as Lieutenant Governor, and he continued in office till Sir Charles Elliott returned on the 30th November.

North Western Provinces and Oudh.

Sir Charles Crosthwaite, K.C.S.I., continued to be Lieutenant Governor of the North Western Provinces and Chief Commissioner of Oudh during the year.

Punjab.

Sir Dennis Fitzpatrick, K.C.S.I., continued to be Lieutenant Governor of the Punjab throughout the year.

Burma.

Mr. Frederick W. R. Fryer, C.S.I. (now Sir Frederick Fryer, K.C.S.I.), continued to officiate as Chief Commissioner of Burma throughout the year during the absence, on furlough out of India, of Sir Alexander Mackenzie, K.C.S.I.

Central Provinces.

Sir Antony MacDonnell, K.C.S.I., continued to be Chief Commissioner of the Central Provinces until 26th May, when he was appointed to officiate as Lieutenant Governor of Bengal. Mr. J. Woodburn, C.S.I., was appointed to officiate as Chief Commissioner in his absence, and after 1st December held that office substantively.

Assam.

Mr. W. E. Ward, C.S.I., continued to be Chief Commissioner of Assam.

Ajmere-Merwara.

Colonel George H. Trevor, C.S.I., continued to be Chief Commissioner of Ajmere-Merwara.

Coorg and Mysore.

Colonel Philip D. Henderson, S.C., C.S.I., continued to be Chief Commissioner of Coorg.

Hyderabad Assigned Districts.

Mr. T. J. C. Plowden, C.S.I., continued to be Resident at Hyderabad, and Colonel K. J. Mackenzie, C.I.E., Commissioner of the Hyderabad Assigned Districts.

Madras.

The Right Honourable Lord Wenlock, G.C.I.E., continued to be Governor of Madras. Lieutenant General Sir James Dormer, K.C.B., was succeeded as Commander in Chief and second in Council by Lieutenant General Charles Mansfield Clarke, C.B., who took his seat 30th October. Sir Henry Stokes, K.C.S.I., Senior Civil Member of Council, and Mr. John H. Garstin, C.S.I., Second Civil Member of Council, were succeeded, the former by Mr. William H. Bliss, C.I.E., who took his seat 9th November, the latter by Mr. James Grose, who took his seat 9th January.

Bombay.

The Right Honourable Lord Harris, G.C.I.E., continued to be Governor of Bombay during the year. Lieutenant General Sir John Hudson, K.C.B., was succeeded as Commander in Chief by Lieutenant General Charles E. Nairne, C.B.,

ADMINITSRATION. C.B., R.A., who took his seat in Council on 16th September. Mr. Herbert M. Birdwood, C.S.I., and Mr. Arthur C. Trevor, C.S.I., continued to be Third and Fourth Members respectively.

Political Agencies and Residencies. Mr. Robert Joseph Crosthwaite, C.S.I., and Colonel George Herbert Trevor, C.S.I., were Agents to the Governor General in Central India and in Rajputana respectively during the whole year, officiating appointments being required only during their short absences on privilege leave. The Residency in Kashmir was occupied during the whole year by Lieutenant Colonel D. W. K. Barr, and that in Mysore by Colonel P. D. Henderson, C.S.I. Except for a short absence on privilege leave, Colonel J. Biddulph held the post of Agent to the Governor General at Baroda, and the Agency in Beluchistan remained throughout the year in the charge of Major General Sir James Browne, K.C.S.I., C.B. In the Residency, Persian Gulf, there were six changes, Lieutenant Colonel A. C. Talbot, C.I.E., leaving the post in May 1893, and his permanent successor, Colonel F. A. Wilson, taking up the duties in January 1894. At Aden, Brigadier General J. Jopp continued to be Political Resident throughout the year.

LEGISLATION.

LEGISLATION. Indian Councils Act, 1892. During the year 1893-94 the alterations in the constitution of the Legislative Councils of the Governor General, the Governors of Bombay and Madras, and the Lieutenant Governors of the North Western Provinces and Bengal, which were prescribed by the Indian Councils Act of 1892 (55 & 56 Vict. c. 14),* were brought into operation. The Act of 1892 was the continuation of a policy which had been inaugurated by the Indian Councils Act of 1861 (24 & 25 Vict. c. 67). The passing of the earlier Act marked the recognition of the fact that the time had come when it was both just and politic to admit to all the Councils, when assembled for legislative purposes, additional members, native and European, not connected with the Executive Government, and capable of taking an independent and responsible share in the legislation of the country. The object of the Act of 1892 was to extend the principle of the Act of 1861 by bringing the Legislatures into closer relation with the best representatives of public opinion. The method by which the framers of the Act sought to attain this object was the increase of the number of the additional members, and the inclusion among them, in addition to the direct nominees of the Head of the Government, of representatives recommended in the first instance either by recognised corporations or by associations formed upon a substantial community of interests, professional, commercial, or territorial. The Act left to the Government of India the task of framing rules to regulate the selection of additional members. The system is now in complete working order, and the new constitution of the Councils will be seen from the following paragraphs.

Governor General's Council. The Act of 1892 provided that the number of additional members of the Governor General's Council should not be less than 10 nor more than 16. The rules provide that not more than six of these may be officials. The nominations to five seats are made by the Governor General on the recommendation of the non-official members of the four local legislative Councils and of the Calcutta Chamber of Commerce. The remaining seats may be filled by the Governor General at his discretion.

Councils of Governors of Madras and Bombay. Madras. The number of additional members of the Councils in Madras and Bombay, must, under the Act, be not less than eight nor more than twenty. In Madras it has been prescribed by the rules that not more than nine additional members may be officials. The nominations to seven seats are made by the Governor on the recommendations of the following bodies, viz., the Corporation of Madras (one member), certain municipal corporations or groups of corporations (two members), district boards (two members), such commercial associations as may be from time to time prescribed – at present the Chamber of Commerce (one member), and the Senate of the University (one member). In order to render the system of representation as complete as circumstances permit, each district municipality

* *See* the preceding Number of this Statement, p. 4.

municipality and board is allowed to propose a candidate, and to appoint a delegate to vote in its behalf. The remaining seats are filled by the Governor at his discretion, but subject to the condition that one seat must be held by a landed proprietor paying as revenue not less than Rs. 20,000 annually. In Bombay also not more than nine additional members may be officials. The nominations to eight seats are made by the Governor on the recommendation of public bodies similar to those which are allowed to recommend in Madras, with the addition of the Sardars of the Deccan and the Jagirdars of Sind, who, as representing the land-holding element of the community, may each recommend a member. LEGISLATION. Bombay.

The number of additional members of the Councils of the Lieutenant Governors of Bengal and of the North Western Provinces of Oudh was left by the Act to be fixed by the Governor General subject to the limit of 20 for the former, and 15 for the latter. In each case the maximum allowed has been adopted. In Bengal not more than ten, and in the North Western Provinces not more than seven, may, under the rules, be officials. In Bengal seven, and in the North Western Provinces six, seats are filled by the nomination of the Governor on the recommendation of public bodies similar to those which have seats allotted to them in Madras, except that in the North Western Provinces associations of landholders (whether landlords or tenants) may, at the discretion of the Lieutenant Governor, be called on to recommend to one or two seats instead of the district boards. The representation of the agricultural section of the population in Bengal is secured by the proviso that, in filling up the vacancies left to his discretion, the Lieutenant Governor must see that one seat is occupied by a representative of the great landowners of the province. Councils of Lieutenant Governors of Bengal, and of North Western Provinces and Oudh.

The method of election by the municipalities and district boards is more or less the same for all Councils as in Madras, except that in Bombay the number of voting representatives is proportionate to the population, and in Bengal to the income, of the electing bodies.

The Act of 1892 has thus made the Indian Legislative Councils more representative in their constitution than they had ever been before, but it has done more. Previously the Legislative Councils could concern themselves with no questions except those directly arising out of the legislative business with which they were dealing, and they had no opportunity of criticising the financial policy of the Government except when they were legislating on financial subjects. In 1892, however, the Governor General and the Local Governments were empowered to make rules for authorising, at any meeting of their Legislative Councils, the discussion of the annual financial statement of the respective governments and the asking of questions. The rules drawn up for these purposes have been made as short and simple as possible, but in their general purport resemble those in force in the House of Commons. Questions must be so framed as to be merely requests for information, and must not be couched in an argumentative or hypothetical form, or defamatory of any person or section of the community. No discussion is permissible, and the President may disallow any question which, in his opinion, cannot be answered consistently with the public interests. In the provincial Councils there is the further limitation that questions can be asked only on such matters as fall under the control of the provincial governments, while the financial discussion is similarly limited to the branches of revenue and expenditure controlled by those governments. The Act itself provides that no resolution may be proposed, or division taken, in respect of any financial discussion, or of the answer to any question.

Fourteen Acts were passed by the Council of the Governor General in the year under review. Of these the most important were: Act I of 1894, to amend the law for the acquisition of land needed for public purposes and for companies; VIII of 1894, the Indian Tariff Act; and I of 1894, to consolidate and amend the law relating to prisons. The first meeting of the Council at Simla was held on 26th June 1893, and the last on 20th October. The Council re-assembled at Calcutta on 11th January 1894.

During the year 1893-94 two Acts were passed by the Council of the Lieutenant Governor of Bengal, viz., Act I of 1893 for the licensing of warehouses and the maintenance of a fire-brigade, and Act I of 1894 for the amendment of Act I of 1893. Legislation in Bengal.

LEGISLATION.

Legislation in N. W. P. and Oudh.

No Acts passed by the Council of the Lieutenant-Governor of the North-Western Provinces received the sanction of the Governor-General during the year.

Legislation in Madras.

Five Acts were passed into law by the Council of the Governor of Madras, viz., Act III of 1893, for the inspection of steam boilers and prime movers; Act IV of 1893, for the levy of a cess towards the remuneration of village officers; Act V of 1893, for facilitating inquiries into matters connected with the administration of the revenue and into the conduct of public servants; Act I of 1894, to provide further for the conduct of business by the Board of Revenue; and Act II of 1894, to amend the law relating to village officers in permanently settled and certain other estates.

Bombay.

One Act only was passed by the Council of the Governor of Bombay, viz., Act I of 1894, to further amend the law relating to the municipal government of the city of Bombay.

CHAPTER II.

LOCAL SELF-GOVERNMENT, MUNICIPALITIES, AND SANITATION.

LOCAL SELF-GOVERNMENT, MUNICIPALITIES, AND SANITATION.

In every province of India a great deal of local business is done, considerable funds are raised and spent, and valuable service to the public is performed, by local bodies, which are constituted and exercise their functions under different enactments. Municipal committees exist in most towns of the Indian Empire, and have charge of municipal business generally, including the care and superintendence of streets, roads, water supply, education, hospitals, and police. The number of such committees in each province is given in the body of this chapter. Local and district boards have charge of local roads, sanitary works, schools, hospitals, and dispensaries in rural districts. Bodies of port trustees have charge of harbour works, port approaches, and pilotage. There are, besides, less numerous local bodies discharging similar duties in towns other than constituted municipalities, and in cantonments. The importance of the work of local administration performed by these various authorities is best shown by a statement of the funds at their disposal. The income of the municipalities for 1893–94, apart from loans obtained for special works, was Rx. 3,072,000. The sources of this income and the yield of each source are shown in the table on page . . The revenue enjoyed by the local and district boards during the year was, approximately, the chief source of income; the local cess levied on land, "for expenditure on roads, schools, hospitals, and general purposes," gave a gross yield of Rx. 2,400,000; and among other sources of income belonging to the local boards are tolls on ferries and roads, school fees, the rent of corporate property, and the grants made by Government for educational and medical purposes. The educational grant in 1893–94 was Rx. 1,468,000, and the medical grant was Rx. 971,000; a large part of these sums is administered by local boards.

The income of the port funds, under the management of port trustees and local bodies, amounted in 1893–94 to Rx. 2,254,000.

The revenue of cantonment funds amounted to Rx. 204,000; while that of town and bazaar funds came to Rx. 92,000.

Thus, the revenue from all sources managed by the various local bodies amounts to more than Rx. 11,500,000; of which total less than one-third is shown in the Accounts of the Government of India and in the financial section and Appendix of this Statement, founded thereon.

MUNICIPALITIES.

MUNICIPALITIES. General.

Throughout India the cities and larger towns manage their own local affairs through the agency of commissioners or committees appointed from among the citizens. The municipal bodies exist, raise funds, and exercise powers under enactments which provide separately for the special requirements of each province, and of the three presidency capitals, Bombay, Calcutta, and Madras. In most places the majority of the commissioners or committees are elected by the townsfolk under legal rules, but in every town some, and in a few minor towns all, are appointed by the Government; in almost every municipal body one or more Government officials sit as members; the number of Indian and non-official members, however, everywhere exceeds the number of Europeans and officials. The municipal bodies are subject to the control of the Government in so far that no new tax can be imposed, no loan can be raised, no work costing more than a definite sum can be undertaken, and no serious departure from the sanctioned budget for the year can be made, without the previous sanction of the Government; and no rules or bye-laws can be enforced without similar sanction and full publication.

The sources of municipal revenue are mainly:—

- House tax,
- Tax on rent,
- Octroi duties,
- Bazaar or market rents,
- Carriage tax,
- Water rates,
- Conservancy rates,
- Rents of public lands and properties,
- Public gardens and parks.

MUNICIPALITIES.

The objects on which municipal funds can be spent are, mainly, water supply, hospitals and dispensaries, streets and roads, vaccination, drainage, sanitation, and education. Municipalities do more for the benefit of their citizens under these heads than was done before by Government officers; and the commissioners or committees generally evince diligence and public spirit in the performance of their honorary duties. The interest in the municipal elections, and in municipal affairs generally, is not keen save in a few cities and large towns; but, as education and knowledge advance, interest in the management of local affairs gradually increases. It is reported from most provinces that municipal work is fairly well done, and municipal responsibilities are, on the whole, faithfully discharged, though occasional shortcomings and failures occur in particular towns. The tendency of these local bodies is to be slow in imposing additional taxes and in incurring new expenditure. Many members of municipal bodies are diligent in their attendance to work, whether at meetings for business or on benches for decision of petty criminal cases. The more important totals of municipal statistics for British India for 1893–94 were—

Number of municipal towns - - - - -		748
Total population of ditto as per census of 1891 - -		15,642,000
Total income of ditto, inclusive of loans - -	Rx.	4,599,000
Total expenditure of ditto - - - - -	„	4,527,000
Yield of octroi duties - - - - - -	„	941,000
Yield of direct taxes, or imposts other than octroi	„	1,623,000
Amount of loans credited in the income of the year	„	978,000

Bengal. Calcutta.

The Calcutta Municipality consists of 75 commissioners, of whom 50 are elected and 25 nominated. The executive consists of a general committee of 18, seven standing committees, and a number of special committees which are appointed as occasion arises. The various committees held 199 meetings during the year, at which the average attendance was 58 per cent. of the respective members, or somewhat larger than in the previous year. The average attendance of the elected commissioners was again higher than that of the nominated commissioners. The income of the municipality during the year was Rx. 446,379, the chief items being rates, Rx. 339,000, and taxes on professions, &c., Rx. 54,000. The expenditure of the year was Rx. 432,000. The total debt of the city is Rx. 2,276,000; no fresh loan was contracted during the year; while Rx. 24,000 were paid off. The charge for interest on loans was Rx. 54,000; the Calcutta municipal stock commands a high price in the market.

Among the more important matters that came before the Calcutta Municipality during the year were the extension of the drainage scheme to the suburban area, the sale of the improved house sites along the two arterial streets opened through the city, and the improvement of the "bustees," or clusters of huts. A scheme has been prepared for giving complete surface drainage of storm waters to the whole suburban area, giving a sewage system with house connections to the inner or more densely peopled part of the area, and providing sewage depôts for the rural area. The total cost of the scheme is set at Rx. 370,000. If it can be carried out, it is hoped that the health of the suburban area will be still further improved. The extension of filtered water supply to the suburbs has already brought down the death-rate, and in 1893 the suburbs were quite free from cholera; while the death rate for the entire municipality was 29·5 per mille, against 29·6 in the year 1892, and 31·5 in 1891. The improved plots of land along the new roads are fetching what are considered high prices; already these sales have brought in Rx. 240,000, which are being credited to capital and not to revenue account. The improvement of the "bustees" has been retarded, partly because the residents of these spots are unable to pay any large share of the cost of the works, and partly because it was found necessary to begin anew, under the present Calcutta Municipal Act, proceedings that had been originally taken under the Act of 1876.

Bengal. Interior of province.

In the interior of Bengal there were 146 municipalities, as in the previous year. The population living within municipal limits was 2,731,000 persons, or 3·8 per cent. of the whole population of Bengal, excluding Calcutta. The number

number of ratepayers entitled to vote at municipal elections was 464,000, or one in six of the municipal population; the ratio of voters to the whole population ranged from 5 per cent. in Kurseong to 34 per cent. in Meherpore. The municipalities varied in size, from Patna with 165,000, to Nalchiti with 1,675 inhabitants; the majority, however, had populations of between 5,000 and 15,000 inhabitants. In 117 of the 146 municipalities two-thirds of the commissioners are elected by the ratepayers, in the rest the government, in consequence either of the backwardness of the locality or of the intensity of party feeling, exercises the power of nomination. The fourth general election under the present law took place during the year, and in 113 towns elections were held. Many towns were divided into wards, and 550 elections were held in all, besides bye-elections. In 282 cases the elections were uncontested, in 262 cases contests took place, and in only six places did the constituents fail to elect the full number of representatives. The proportion of ratepayers voting at contested elections amounted to 43·2 per cent. of the electors on the roll, as compared with 33·8 per cent. at the general election of 1887, and 39·4 per cent. in 1890. It is said by the local government that "these elections excite an increasing, though slowly, growing interest." Of the 2,140 commissioners there were 1,171 elected and 969 nominated, 360 officials and 1,780 non-officials, 1,946 Indians and 194 Europeans. Among the non-official commissioners were included 522 zamindars, 489 pleaders and law agents, and 243 merchants and money-lenders. MUNICIPALITIES.

The number of meetings held during the year was 2,359, against 2,534 in the preceding year. In 25 municipalities more than 20 meetings were held; in 24, as against 15 in 1892-93, were there less than the prescribed minimum of one in each month. The attendance was unequal; in 93 towns the attendance was, on the average, more than 50 per cent. of the members, in two it was less than 33 per cent. The average incidence of municipal taxation was 12¾ annas per head of the population; and in 28 towns the incidence exceeded one rupee per head. Exclusive of loans and extraordinary receipts, the total income was Rx. 279,000, of which Rx. 218,000 came from municipal taxation; and loans yielded Rx. 30,500. The total expenditure was Rx. 331,500. The chief heads of outlay were: public safety (fire establishments, lighting, police, &c.), Rx. 20,900; water supply, Rx. 15,600; conservancy, Rx. 84,000; hospitals and dispensaries, Rx. 28,200; streets and roads, Rx. 43,100. The decrease in outlay on water supply was matter for regret. At present Dacca, Darjeeling, Kurseong, Bhagalpore, Burdwan, and Arrah are the only towns which have efficient water supplies. The Arrah waterworks were opened during the year, and schemes are in a more or less forward state for a water supply to Hooghly, Howrali, and Maniktolah. The amount devoted to the repairs of tanks and wells rose from Rx. 3,800 to Rx. 4,600; but is still small. Many towns are in great need of improvements in the water supply, notably Puri, which is the resort of hundreds of thousands of pilgrims, but where much of the drinking water is of an objectionable kind. Renewed attention is being directed to the matter. The local government recorded, in the review of the year's work, that "a great measure of success had "been attained by the municipalities of Bengal, and that the Municipal "Commissioners, who gave gratuitously time and trouble, which they can often "ill spare, had deserved well of their fellow-countrymen."

North-West Provinces and Oudh, for the Year 1892-93.

The number of municipalities in the North-West Provinces and Oudh was 103, being the same as in the previous year. In all but seven of these towns the majority of the members of municipal boards are elected by the ratepayers, who amount to about 1·7 per cent. of the municipal population of 3,267,999. Elections were held in 68 municipalities during the year, the proportion of the electorate that went to the poll ranged from 16 to 87 per cent. In 97 towns the municipal boards elected their own chairman, but in only six cases did they choose non-officials. The total number of municipal members was 1,562, divided thus:—

Elected - - 1,248	Non-officials - 1,268	Indians - - 1,403
Nominated or *ex-officio* - 314	Officials - - 294	Europeans - 159

Each municipality held, on the average, 20 general meetings in the year; eight held 30 meetings and over. For all the municipalities of the province

MUNICIPALITIES. the average attendance of members at each meeting was 54 per cent ; in one town, Káshipur, the average attendance at each meeting reached 80 per cent., and in one it fell as low as 40 per cent. of the total members. Most municipalities have provided themselves with bye-laws, which are carefully revised from time to time.

The chief source of municipal taxation is the octroi duty, which is in force in 83 towns, and yielded Rx. 219,847 ; while other taxes yielded Rx. 44,228 ; Rx. 75,000 accrued from rents and miscellaneous sources. The incidence of income from taxation was 12⅝ annas (over three-quarters of a rupee) per head of the municipal population. The total municipal income of the year was Rx. 369,500, besides Rx. 122,085 borrowed from Government, for works of water supply and drainage. Out of the normal expenditure of Rx. 500,000, 45 per cent. was devoted to conservancy, hospitals, drainage, streets, roads, public works, and other objects for promoting the public health and convenience ; 3½ per cent. was spent on education, 13½ per cent. on police, lighting, and fire establishments.

The towns which spent most on water supply, drainage, and public works during the year were Cawnpore, Rx. 87,000 ; Benares, Rx. 70,000 ; Lucknow, Rx. 25,000 ; Agra, Rx. 16,000, and Allahabad, Rx. 14,500. In Cawnpore the foundation stone of the new waterworks was laid by Sir Auckland Colvin in March 1892, and in 1892–93 Rx. 30,000 was taken as a loan from the Government towards their erection. In Benares the waterworks, which have cost Rx. 255,822, were completed and opened in November 1892, and are working excellently ; the contract for the new drainage works was given out, and operations were begun during the year ; the estimated cost of the project is Rx. 190,000. In Naini Tal and Mussoorie important waterworks and drainage works are rapidly approaching completion.

The local government is of opinion that, on the whole, the result of the year's working was good, and that the progress made with sanitation in the large cities was marked.

Punjab. The number of municipalities in the Punjab was eight of the first class and 141 of the second class, or 149 in all, containing a population of 2,014,833, besides six small towns, which had a modified form of municipal administration without being constituted as municipalities. On 110 municipal committees, two-thirds or more of the members are chosen by the ratepayers, in 11 all the members are *ex-officio* or nominated. The total number of members on all the committees was 1,664, divided thus :—

Non-official	1,342	Indians	1,534
Official	322	Europeans or Eurasians	130

Elections were held during the year in several considerable towns, and 257 seats were filled by election. The highest proportion of voters going to the poll was 82 per cent. at Guzerat, and the lowest 14 per cent. at Ambala. In Lahore city, out of 16,200 registered voters, 12,937 went to the polls. In the small towns of the interior about half the elections were uncontested.

Ten municipal committees held more than 30 meetings apiece during the year, and 52 committees held less than 12 meetings, the minimum prescribed by law. The general working of the committees throughout the province is reported to be satisfactory, and some committees have been commended for freedom from internal dissensions and religious animosities. The Amritsar committee "maintains its position as a model of unanimity, public spirit, and "close attention to all branches of business." The irregularities in working, that were brought to light during the year, were mostly of a technical nature.

The chief municipal tax was the octroi, which yielded Rx. 288,801 in 145 towns, while the other taxes produced Rx. 18,724 ; the incidence of the total revenue from taxation was about 1·29 rupees per head of the population, as compared with 1·16 rupees in the preceding year, which was one of unusual prosperity. The total municipal income of the year from all sources was Rx. 415,205, of which nothing was from loans. The expenditure was Rx. 411,188, out of which Rx. 18,987 were spent on water supply, Rx. 21,648 on drainage, Rx. 51,213 on conservancy, Rx. 36,000 on hospitals and vaccination, Rx. 20,000 on streets and roads, Rx. 55,799 on schools, &c., Rx. 12,260 on interest

MUNICIPALITIES.

interest, Rx. 13,000 on repayment of loans, and Rx. 60,713 on police, fire-engines and street lighting. The Delhi waterworks were completed; waterworks were under construction at Kohat and Dalhousie; waterworks extensions were made at Simla, Lahore, Peshawur and Rawalpindi; large drainage and sewage schemes were begun at Delhi, Simla, Ludhiana and Gujranwala.

Burma. Rangoon.

The town of Rangoon contains a population of 180,324 (according to the census of 1891), and its municipal affairs are managed by a committee, composed mainly of elected members and a salaried president. No general election took place during the year, but fresh members were elected to represent the Chamber of Commerce and the Port Commissioners on the committee. Thirteen of the members were Europeans or Eurasians, and 19 were Asiatics; 21 were non-officials, and four, including the president, were officials. Sixteen general meetings and 56 sub-committee meetings were held during the year; the attendance at the general meetings averaged 14 members, or 58 per cent. of the whole strength. The income of the municipality was Rx. 301,800, out of which Rx. 91,000 accrued from loans; Rx. 33,000 from the sale of investments and of lands; Rx. 63,700 from rates on houses and lands; Rx. 36,900 from the proceeds of municipal properties, chiefly markets; and Rx. 56,000 from contributions from provincial and local funds. The expenditure of the year amounted to Rx. 255,000, of which Rx. 66,000 were spent on waterworks and drainage, Rx. 18,100 on conservancy, Rx. 12,400 on hospitals and vaccination, Rx. 23,800 on streets and roads, Rx. 12,300 on reclamation of swamps, Rx. 5,700 on education, Rx. 20,000 on interest on debt, Rx. 63,500 on repayments and of sinking fund loans. The outstanding debt of the municipality at the end of the year was Rx. 413,000. Loans contracted during the year were obtained in the market at rates under 5 per cent. The chief work of the year was the extension of the water storage and the establishment of a high-level supply. The water supply will have to be still further increased, and plans for doing this are being investigated. The pneumatic sewage disposal system worked well during the year. The sale of reclaimed land has been so successful as to warrant expectation that all outlay on this object will be recouped within a very few years. The town birth-rate remained about the same as in the preceding year; the death-rate was 29·97 per mille, against 34·38 in the preceding year for the whole town, but in one of the outlying parts, to which the water supply and sewage systems do not yet reach, the death-rate was as high as 48·90 per mille. Important reforms were made in the management of slaughter-houses and the regulation of the meat supply.

Burma. Interior of Province.

The number of municipalities in Burma outside Rangoon was 39, as in the previous year, and they contained a total population of 513,365. In 24 of these towns a majority of the municipal members are elected by the ratepayers, in 14 towns of Upper Burma all the members hold their position either *ex-officio* or by nomination. The decision in the case of each municipality, as to whether the method of election or that of nomination shall be adopted, rests with the local government. There are in all 484 members on the several municipal committees, divided thus:—

Elected - - 86	Non-officials - 299	Asiatics - - 346
Ex-officio and nominated. 398	Officials - - 185	Europeans - 138

General elections were held during the year in three towns; they excited little interest and few contests. Only three towns held less than 12 meetings in the year; the average attendance at each meeting ranged from 42 to 89 per cent. of the members: and in seven towns the average attendance was below half the total strength of the committee.

The chief sources of municipal taxation are the rates on the annual value of houses and lands, yielding Rx. 42,499 out of a total income from taxation of Rx. 57,558; water rates yielding Rx. 13,579, and conservancy rates Rx. 2,094. The other chief sources of municipal revenue were municipal property, chiefly bazaar rents, Rx. 94,901, provincial and other grants and contributions Rx. 4,575. The total income of the year, apart from loans and debt account, was Rx. 161,819. The total expenditure of the year in Lower Burma was Rx. 108,094, of which the chief items were Rx. 27,023 on conservancy; Rx. 19,231 on hospitals and dispensaries; Rx. 32,569 on markets and slaughter houses; Rx. 26,935 on streets and roads; Rx. 8,911 on education; and Rx. 2,375 on

MUNICIPALITIES.

water supply. Outside Rangoon, Mandalay is the only town in Burma that has a municipal income of over Rx. 16,000. The Mandalay municipal income of 1893–94 was Rx. 42,833. The average incidence of municipal taxation outside Rangoon was one rupee a head in Lower and three-quarters of a rupee per head in Upper Burma. Besides municipalities there are 10 other places in Lower Burma where town funds are raised, the amount during the present year being Rx. 13,242, and are managed by committees nominated from among the townsfolk.

Central Provinces.

The number of municipalities in the Central Provinces was 55, one less than in the preceding year; orders for the closing of two more were issued in 1894; in each of the three towns the population was considerably under 5,000, in one case it was only 1,500 souls. A majority of the members of all committees, except three, are elected; out of 626 members on all committees, 451 were elected, and 175 were nominated, or *ex-officio*; 144 were officials, and 482 non-officials; 53 were Europeans, and 573 were Natives of India. General elections were held in 23 municipalities, besides 10 bye-elections; it is reported that "the attendance of voters was fair." The proportion of electors voting at contested elections ranged from 100 per cent. at Saugor, and 99 per cent. at Gadurwara, to 6 per cent. at Tumsar; in 21 out of 32 contested elections more than half of the registered electors voted. The total municipal receipts of the year were Rx. 130,730, of which Rx. 78,969 accrued from octroi duties. The total income, apart from loans, was Rx. 6,300 above similar receipts in the previous year. The total municipal expenditure was Rx. 127,655, or Rx. 20,300 less than in the preceding year. The expenditure on waterworks was Rx. 10,500; on conservancy Rx. 24,500; on schools and colleges Rx. 15,900; on streets and roads Rx. 10,100; and on dispensaries and hospitals Rx. 8,900.

When reviewing the work of the municipalities, the Local Government specially commend the diligent and successful attention to civic duty shown by the Committees of Nagpore, Jubbulpore, and five other important towns; the conduct of the Committees only is censured; and regarding the Central Provinces Committees generally it is said: "With widely-varying circumstances, there are certain characteristics common to all which speak well for the future of local self-government. The Committees are homogeneous; they show interest in their work, and much practical intelligence and business capacity. The position of a municipal member is looked up to and respected. They speak with confidence, as men who have the public opinion of their fellow-townsmen behind them. Cases are mentioned in the reports of corrupt subordinates being sharply brought to account by non-official members of their Committees. There is no reason to distrust the signs of steady progress."

Assam.

The number of municipal bodies in Assam was 12, as in the preceding year; of these three were first-class, and four were second-class municipalities, two were stations, and three were unions. In only one town does the population exceed 10,000; in six of the larger places the majority of the members are elected. In all the 12 towns the members are divided thus: nominated 84, elected 41, total 125, of whom 79 were non-officials and 46 officials, 99 were Natives and 26 Europeans. A general election took place at Cachar in April 1893; but the result was not confirmed, and *ad interim* members had to be nominated; a second election took place in February 1894, and was confirmed in the following April. In four other towns bye-elections took place. The total income of the 12 towns increased from Rx. 15,403 to Rx. 15,459, of which Rx. 8,846 accrued from taxation. The two chief items of taxation were Rx. 3,956 from rates on houses, &c., and Rx. 2,144 from tolls on roads and ferries. Among the other receipts, the larger items were Rx. 1,798 from grants by the Provincial Government, and Rx. 1,719 from markets and slaughter-houses. The incidence of municipal taxation was $1\frac{1}{5}$ rupee per head of the population. The total expenditure was Rx. 14,690, of which the chief items were Rx. 6,900 on conservancy, drainage, water supply, and dispensaries, and Rx. 4,300 on roads, markets, and buildings.

Madras.
Madras City.

In the municipality of Madras there are 34 members, of whom 25 are elected by 4,560 ratepayers. There was no general election during the year, and the six bye-elections, of which two only were contested; for these two vacancies 48 and 64 per cent. of the registered electors recorded their votes.

The

MUNICIPALITIES.

The names on the roll of qualified voters form little more than one per cent. of the total inhabitants of the city. At 23 meetings of the Commissioners the average attendance of members was 15, or 25 per cent. more than in the previous year; 10 members attended less than 10 meetings during the year; and seven members lost their seats by absenting themselves from three consecutive general meetings. The total income of the year, apart from loans, was Rx. 722,777, or Rx. 4,662 less than in the preceding year; of the year's total, Rx. 89,577 accrued from taxation, which fell on the population at the rate of two rupees per head; the principal tax is one of 10 per cent. on houses and lands. No new tax was levied during the year. The total expenditure came to Rx. 124,986, of which Rx. 44,500 were spent on sanitation and conservancy; Rx. 19,300 on streets, roads, and other public works; and Rx. 18,400 on the interest for and repayment of debt. The scheme for the new water supply was not advanced during the year; but steps were taken for making the existing water supply more generally available. Direct connection with the water supply was extended to more houses than in any previous year. Water from the Red Hills Lake, the old source of supply in the municipality, was again pronounced by the analyst to be "suspicious, when taken from stand-pipes in the town." The registered municipal death-rate was 41 per mille against 46 in 1892, and 52·6 in 1891. The mean of the previous decade was 39. The outstanding debt of the municipality amounts to Rx. 280,000, against which must be set the sinking fund, which now amounts to Rx. 97,000. The payments to the sinking fund during the year were Rx. 5,100.

Interior of the Madras Presidency.

The number of municipalities in the interior of Madras was 55, as in the previous year. The councils were partly elective in 34 of these towns, as against 33 in the previous year. In 36 towns the councils elected their own chairman; the privilege of electing its chairman was withdrawn from the Coconada municipality, and restored to Tanjore during the year. There are 863 municipal councillors in all, divided thus:—

Elected - -	371	Non-officials -	669	Indians - -	709
Nominated -	481	Officials - - -	183	Europeans and Eurasians -	143

There was a small increase of one per cent. in the total municipal income, which came to Rx. 261,000; of this Rx. 136,000 came from taxation, the chief items being Rx. 63,700 from rates on lands and houses, Rx. 34,800 from tolls; and the average incidence of taxation was 13¼ annas per head of the population. The chief sources of miscellaneous receipts were fees and revenue from markets and slaughterhouses, Rx. 14,300, and grants from Government, local funds, and other sources, Rx. 35,800. The total expenditure of the year was Rx. 273,900, of which the chief items were public works, including drainage and water supply, Rx. 112,900; education, Rx. 30,600; medical services and sanitation, Rx. 76,600; lighting and miscellaneous purposes, Rx. 19,000; supervision and management, Rx. 17,500. The outstanding public debt of all municipalities was Rx. 25,839, after deducting moneys at credit of the various sinking funds. Water supply schemes were being prosecuted during the year at the towns of Adoni, Cuddapah, Conjeveram, Madura, Tanjore, Ootacamund, and Trichinopoly; in each case considerable grants-in-aid have been made from provincial funds. At Cuddapah, Tirupati, and Tanjore drainage schemes are also being carried out. It is reported that at 17 other towns schemes have been framed, levels taken, or other preparations made towards improving the water supply or drainage.

In the towns where councils are elective, 2·6 per cent. of the inhabitants are on the electoral roll. Out of 135 seats that fell vacant during the year, 82 were contested; and at the contested elections 51 per cent. of the registered voters exercised the franchise. Each town council in the interior of Madras held, on the average, 27 meetings during the year, with an average attendance of 8·5, as in the previous year, out of a strength of 15 members. The Madras Government, when reviewing the municipal reports of the year, said: "The year's administration compared not unfavourably with that of the preceding year; but in almost every branch of it, and particularly in sanitation, there was in almost every town considerable scope for improvement."

MUNICIPALITIES.

The Municipality of Bombay is administered by a committee consisting of 72 members, of whom 16 are nominated by the Government, 36 are elected by the ratepayers, 16 by the justices, 2 by the Chamber of Commerce, and 2 by the University. Fifteen of the members were Europeans and the rest were Indians.

Bombay.
Bombay City.

The total income of the municipality, exclusive of loans, was Rx. 630,395, or Rx. 36,191 less than in the previous year; of this total, Rx. 533,924 accrued from municipal taxation rates and market receipts, the balance being chiefly received from Government and as revenue from property. The chief items of revenue were the general tax, which yielded Rx. 185,982, the water tax, which yielded Rx. 128,682, and the town duties, which yielded Rx. 89,725. Under all these items the receipts were below those of the previous year. The decrease was partly due to the reduction of rates, but mainly to the smallness of the arrears with which the year began. The total expenditure of the year came to Rx. 821,229, of which Rx. 170,706 were from borrowed money. The chief items of outlay from current revenue were Rx. 133,961 on the public health department, Rx. 154,170 on streets and other public works, and Rx. 212,746 on the interest and sinking fund of the city debt. The expenditure from loan funds consisted of Rx. 29,385 on completing the extension of the water supply. The quantity of water in the storage lakes was abundant in consequence of the heavy rainfall. The quality of the water supplied to the city was good, Rx. 124,836 were spent on schemes for providing drainage in three outlying sections of the town; one of the schemes provides sewage on the Shone and Ault system for Colaba. Other sewage and drainage schemes are being begun. The death-rate of the year in Bombay was 28·16 per mile, against 32·26 in the previous year, and 28·10 the average of five years. The outstanding debt of the city at the end of the year was Rx. 3,679,000, against which may be set Rx. 616,000 invested in behalf of sinking and other funds belonging to the municipality. A Government loan, carrying interest at 4½ per cent., was paid off during the year with money borrowed from the public at 4 per cent., by which operation a yearly reduction of Rx. 11,315 was effected in the charge for interest on debt.

Interior of the Bombay Presidency.

The total number of municipalities in the interior of Bombay was 174 against 176 in the previous year; two municipalities were abolished during the year. The population within municipal limits was 2,286,000, besides the population of Bombay city. The total number of municipal commissioners in these towns was 2,427, of whom 909 were elected, and the rest nominated by the Government; the proportion of Asiatics to Europeans was 10·6 to 1, and of non-officials to officials 2·5 to 1 on these bodies.

There was improvement in the regularity of attendance at municipal meetings; only five towns are reported as having failed to hold the prescribed number of meetings in the year; and almost everywhere the number of members present at a meeting averaged more than half the strength of the members. The income of the municipalities, exclusive of loans, showed a decrease of Rx. 8,500 compared with the preceding year. In Hyderabad a conservancy cess was introduced, but for the rest no new taxation was imposed. The expenditure from income increased proportionately to the revenue. The total outlay on "public health and convenience" was Rx. 275,000, against Rx. 224,000 in the preceding year. The charge for interest and repayments of loans was Rx. 14,000. Among important sanitary works were an extensive drainage scheme in Karachi, waterworks in Hyderabad, Shikarpore; water supply works for Viramgaon, Dakor, Surat, Thana, Koosta, Bandra, Kalyan, Dhulia, Panwel, Hubli and Dharwar were in different stages of progress. At Hubli only were the works opened during the year. At Poona and several other towns drainage works were in progress. The death-rate of the province was 27·2 during the year 1893, against 32·5 in the previous year, and 27·8 the average of the previous 10 years.

Berar.

The number of municipalities in Berar was raised from eight in the previous year to 11, and in seven of these towns the majority of the municipal committees are elected by the ratepayers.

There

MUNICIPALITIES.

There are altogether 166 members, divided thus:

Elected	- 89	Non-officials	- 112	Asiatics	- 135
Nominated	- 77	Officials	- 54	Europeans	- 31

In seven municipalities there occurred 30 vacancies, for which 65 candidates presented themselves. Out of 5,343 registered voters, 1,339 recorded their votes; and the proportion of voters going to the poll ranged from 15 to 48 per cent. in the different towns; the proportion was smallest in Amraoti, the largest town of the province. The total income of the municipalities was Rx. 38,340, of which Rx. 12,600 was a Government loan to Akola for its water-works, Rx. 5,202 accrued from taxes on trades and professions, Rx. 2,164 from water-rates, Rx. 1,734 from conservancy tax, Rx. 3,750 from a special tax on bargains in cotton and grain levied in two municipalities, and Rx. 8,430 from municipal property, markets, and institutions. Municipal income apart from loans and grants ranged from 10 annas in Ellichpore to 3½ rupees per head of the population in Khamgaon. The total expenditure was Rx. 36,693, of which Rx. 14,860 were spent on the Akola waterworks, Rx. 15,366 on public health and convenience, Rx. 873 on public safety, Rx. 1,882 on public instruction, and Rx. 1,514 on administration and collection charges. Nine out of the 11 municipalities contribute towards schools or colleges, and six towards libraries; three spend money on fire establishments, and seven on water supply. No municipality held less than 13 meetings in the year, and one town (Khamgaon) held 62 meetings; the average attendance at municipal meetings was somewhat less than half of the members of each committee.

DISTRICT BOARDS.

DISTRICT BOARDS. General.

The constitution of district boards with precise powers and responsibilities under the law took place more recently than the creation of municipalities; but in most provinces district committees had for many years given assistance or exercised control in the administration of local roads, local hospitals, and local schools. In all the more advanced provinces, district boards are now constituted under different enactments. In Madras, the boards have the power of proposing local taxation, and in Bengal they are empowered to decide at what rate, within the legal maximum, the road cess shall be levied in each district; but for the most part the district boards do not possess powers of taxation; they administer funds, or the yield of specific imposts, made over to them for expenditure on roads, schools, hospitals, and sanitation, within their jurisdiction. In most provinces the district boards delegate much of their detailed work to sub-divisional, or minor boards, which are constituted under the law, and are responsible for subdivisions or parts of a district.

Bengal.

In Bengal there were 38 district boards and 102 local boards. On the district boards were 794 members, of whom 309 were elected; on the local boards were 1,222 members, of whom 435 were elected. Out of the total number of 2,016 members, 393 were officials and 314 were Europeans or Eurasians. Of the non-official members, 778 were landholders or their agents, and 509 were lawyers. These numbers and proportions were much the same as in the previous year. During the year general elections for these boards were held in only two districts; in one, Mymensingh, little general interest was aroused, and the attendance of voters ranged from 10 to 30 per cent. of the total names on the electoral roll; in the other district, Backergunj, interest was general and contests were keen. In the year 1893-94 each district board held on the average 16·4 meetings: no board held more than 25, and none less than 10; and the average attendance at each meeting was 10 members, or about 47 per cent. of the full strength. The local boards held on the average 17 meetings apiece, at which the average attendance was less than six members, or nearly half the full strength. The number of meetings that had to be adjourned for lack of a quorum was smaller than last year, both for district and for local boards.

The Bengal boards enjoyed during the year an income of Rx. 668,000, of which the largest items were a road cess, Rx. 360,000; contributions from provincial funds, Rx. 119,000; cattle pound fees, Rx. 45,000; and receipts

DISTRICT BOARDS.

from ferries and other similar sources, Rx. 43,000. The provincial rates receipts showed a decrease of Rx. 3,000 as compared with the previous year, due to the smallness of arrear collections. The loans by the Government to the boards on account of various undertakings were Rx. 50,000 less than in 1892–93. The expenditure of the year was Rx. 670,000, of which the chief items were roads, bridges, and waterways, Rx. 434,000; education, Rx. 108,000; hospitals, &c., Rx. 13,000. Last year there was an outlay of Rx. 29,000 for famine relief, but during 1893–94 there was happily no necessity for expenditure of that kind. Of the money devoted by the boards to education, rather nearly half was spent on primary education. The expenditure on sanitary improvements fell from Rx. 13,000 to Rx. 8,400, of which Rx. 4,300 were spent on water supply. The local Government has instructed the boards to devote larger sums to this purpose in the future.

Respecting the work of the boards during the year, the Lieutenant-Governor says that their "important duties have been harmoniously and unostentatiously "discharged. The crudities which marked earlier years have largely dis- "appeared; in places there is a tendency to favour one or more branches of "the administration at the expense of others, but year by year mistakes are "corrected and improvements are introduced * * * and the work of the "boards during 1893–94 has been marked by steady progress."

North-West Provinces and Oudh, for 1892–93.

In the North-West Provinces and Oudh there were, as in the previous year, four district committees and forty-four district boards. The boards consisted of 1,638 members, who were divided as follows:—

Elected -	1,286	Non-officials -	1,354	Indians -	1,558
Nominated -	352	Officials -	284	Europeans -	80

The committees consist of 77 members, who are divided as follows:—

Nominated - - -	52	Indians - - - -	61
Ex-officio - - -	25	Europeans - - -	16

The total expenditure of the boards and committees during the year was Rx. 387,794. The normal income of Rx. 263,706 (of which Rx. 190,800 came from local rates) had to be supplemented by contributions from provincial and other revenues of over 12 lakhs.

The district boards held on an average 13 meetings each, and the district committees 8 meetings each. Both on the boards and the committees the average attendance at meetings was small; at the boards it was less than 30 per cent. of the members, and at the committees less than 50 per cent.

The administration of the boards and committees during the year was, in the opinion of the Lieutenant-Governor, generally successful, and was of great help as a supplement to the general work of the government of the Province. The supervision of education and of medical relief was performed particularly well. The public works administration, which was concerned chiefly with the construction and maintenance of district roads, is also reported to have been carried out in a satisfactory manner.

Punjab.

In every district of the Punjab, except Simla, there was a district board constituted under Act XX. of 1883, and in every district, except Simla and seven frontier districts, there were subordinate local boards acting under the district boards. In 12 districts, situate on or near the frontier, the boards are composed entirely of nominated members, and in the other 18 the members are in part nominated, in part sit *ex officio*, and in part are elected delegates from the local boards. Of the 81 local boards 13 are filled up wholly by nomination, and 68 partly by nomination and partly by election. Out of a total of 2,849 members the number of elected members in the whole province was 1,427, and of nominated members 1,422. The number of non-officials on the boards was 2,504, and the officials were 345. Elections to the local boards were held in 10 districts during the year; out of 217 vacant seats only 48 were contested; in one case 70 per cent. of the voters came to the polls, but at many the number of voters was small. The local Government say that "the "attitude of the rural population towards the election was one of indifference." Eight out of the 30 district boards held less than 12 meetings during the year, which is the minimum number of meetings required by the rules; in 13 districts the

the average attendance at meetings was less than half the number of members. The district officers report favourably as to the conduct and value of district boards in all districts except Rohtak; from some districts the accounts of the good work done and the good judgment shown by native non-official members are eminently satisfactory. DISTRICT BOARDS.

Excluding debt transactions, the year's income of all the boards came to Rx. 290,374, of which the chief items were Rx. 230,070 from local rates; Rx. 7,375 from school fees; Rx. 14,396 from ferry receipts; and Rx. 8,295 from gardens, fairs, &c. The total expenditure of the year was Rx. 294,169, of which the chief items were, education, Rx. 62,321; hospitals, vaccination, and other medical or sanitary charges, Rx. 33,846; experimental cultivation, horse and cattle fairs, veterinary and botanical charges, &c., Rx. 16,484; and roads and other public works, Rx. 104,324. Of the last mentioned grant, Rs. 2,811 was spent on water supply, or nearly double the sum devoted to this object in the previous year.

In every district of the Central Provinces except the backward tract of Mandla, district councils and local boards, subordinate to those councils, have been established. There are 17 district councils and 53 local boards. The total number of members on these bodies was 1,197, divided thus:—

Elected members -	907	Non-officials	1,075	Asiatics - -	1,174
Nominated or *ex officio*.	290			Europeans or Eurasians.	23
		Officials -	122		

Four hundred and ninety meetings were held, as compared with 461 in the previous year. Of 122 officials the average attendance was 92, but of 1,075 non-officials the average attendance was only 423, or less than 40 per cent. Much difficulty was found in securing regular attendance. General elections were held in nine, and bye-elections in seven, districts. The interest shown in these elections varied greatly; thus at the Jubbulpore local board elections 577 mercantile electors out of 688 or 84 per cent., and out of 1,843 rural electors 1,635 or 88 per cent. came to the polls; while at the Khundra election only 36 per cent. of the mercantile electors and only 56 per cent. of the rural electors recorded their votes. The local government considers that the work of the district councils is wanting in vigour and method; but allowance must, it is added, be made for bodies of gentlemen who are now only being trained to habits of business.

The maintenance and construction of metalled roads is undertaken by the Provincial Public Works Department in behalf of the councils, which, however, advise upon road projects within their jurisdiction. Education is the most important matter with which the councils deal; they have charge of all primary and many middle schools, and they administer the grant-in-aid funds available for rural schools. The amount spent in improving the water supply was Rx. 8,800 as compared with Rx. 15,821 in 1892–93. The income of the councils and boards was Rx. 88,000, of which the bulk was yielded by local rates, cattle-pound fees, and contributions from provincial funds; the main items of their expenditure were Rx. 34,100 on roads and other works, Rx. 25,700 on schools, and Rx. 6,200 on hospitals and vaccination.

In Assam there are 19 local boards, constituted under the Assam Local Rates Regulation of 1879. They enjoyed for the year 1893–94 an income of Rx. 125,402, or Rx. 9,610 in excess of the previous year; they spent Rx. 107,494; 66 per cent. of the total expenditure was devoted to public works, 16 per cent. to education, and 6 per cent. to sanitary and medical objects. Orders were given that in future every local board should spend yearly not less than 5 per cent. of its income on the water supply, drainage and cleansing of areas outside towns and municipalities. ASSAM.

In Madras there were 21 district boards, with not less than 24 members on each, of whom one-half are elected by the taluk or subdivisional boards. The members of 85 taluk boards are appointed by Government from the residents and ratepayers of the taluk. On all the boards there are 1,802 members, of whom 1,263 were non-officials and 539 were officials; out of the latter number MADRAS.

DISTRICT BOARDS. 69 were members elected by taluk boards to be their representatives on the district boards. Below the taluk boards were 360 village unions, which were occupied chiefly with local sanitation and the management of elementary schools, markets, and other local institutions entrusted to them by the taluk boards. The district boards held 255 meetings, at which the average attendance was 17 (12 non-officials and five officials), out of an average strength of 31 members. The taluk boards held 1,131 meetings, at which the average attendance was seven members (five non-officials and two officials), out of an average strength of 14 on each board. The village unions held 4,651 meetings, or 539 more than in the previous year. The local Government considered the administration of local affairs to have been on the whole creditable to the local boards and panchayets; and the Government named six boards in different parts of the Province as having been prominent examples of good administration.

The income of all the boards during the year was Rx. 814,540, or Rx. 14,140 less than in the previous year. The chief sources of income were: local rates, tolls, and taxes, Rx. 597,343; grants from provincial and other funds, Rx. 28,132; school fees, Rx. 19,520; rents from markets, ferries, and fisheries, Rx. 65,112; loans, Rx. 33,600. The expenditure of the year was Rx. 744,582, of which Rx. 309,131 were spent on roads, ferries, and other public works; Rx. 162,900 on medical and sanitary purposes, and Rx. 111,579 on education. Out of the public works outlay, Rx. 18,000 were spent on new roads, and Rx. 250,000 were spent on the maintenance of old roads. The expenditure on public works was Rx. 76,200 smaller than in the previous year, because no money had to be spent on relief works in a year of comparative plenty.

The length of new roads made during the year was 131 miles, and of roads kept in repair by local boards was 20,456 miles. The expenditure on sanitation, as distinguished from hospitals and vaccination, which cost Rx. 73,424, was Rx. 46,290, of which Rx. 8,905 were spent on improving the water supply.

Bombay. In Bombay there were, as in the preceding year, 23 district and 202 taluk (or sub-divisional) boards; all these boards are elective, except in three backward districts, and seven exceptional sub-divisions. On the boards sat 3,430 members, divided thus:—

Elected	1,544	Non-officials	2,709	Asiatics	3,286
Nominated	1,877	Officials	781	Europeans and Eurasians	204

The total income of the boards was Rx. 471,600, of which more than half accrued from local rates or cesses on land; the next largest was contributions from provincial funds. The total expenditure was Rx. 456,100, the chief items being public works and education. The outlay on water supply was Rx. 41,000, while the expenditure on rural sanitation was small. The average attendance at board meetings exceeded 50 per cent. of the members, which is a satisfactory result, inasmuch as many members live at a considerable distance from the places of meeting.

Berar. In Berar there were six district and 21 taluk (or sub-divisional) boards. Each taluk board consists of 18 members, of whom 12 are elected by the people; the members of the district boards are, for the most part, elected by the taluk boards. The members of the 27 boards were divided thus:—

	TOTAL.	Nominated.	Elected.	Non-officials.	Officials.	Native.	European.
District Boards	155	33	122	131	24	149	6
Taluk Boards	378	128	250	345	33	378	0

All the boards held more than the minimum number of meetings prescribed by the rules; at the taluk boards the average attendance of members was over nine members, or over 60 per cent. of the strength; at the district boards it was

was above 11, or nearly 50 per cent. Seventy-three vacancies occurred on the taluk boards during the year, for which 157 candidates came forward. Out of 24,784 persons on the electoral roll, only 13 per cent. recorded their votes. The income of the local board was Rx. 65,300, of which Rx. 26,800 accrued from provincial rates; Rx. 7,900 from assessed taxes; Rx. 4,400 from school fees; Rx. 8,400 from bazaar taxes, and Rx. 89,000 from provincial contributions. The expenditure was Rx. 77,900, of which Rx. 19,750 were devoted to education, Rx. 3,900 to conservancy, Rx. 26,500 to roads and other public works. A sum of Rx. 5,800 was spent on improving the water supply of villages and small towns. Among public buildings the most notable, on which local money was spent, were school-houses and rest-houses for travellers. It was said by the local Government that "the boards had a fair record of useful work done during the year; "but the civil works done for them required proper supervision; and sanitary "expenditure should be watched," lest public money should "be frittered "away." DISTRICT BOARDS

PORT TRUSTS.

The custody of harbours and the administration of harbour and shore affairs are placed by law in the hands of Port Commissioners, who are appointed for each of the chief ports. Members of these Port Trusts are for the most part appointed by the local Governments, and are usually representative of the various Indian and commercial interests of the place. Port Trustees are empowered, subject to the control of the Government, to levy dues, to contract loans for port improvements, to do all that may be needed for the maintenance of the harbour and its approaches, and to erect warehouses, jetties, and docks for the convenience of traders and shipping. The local Governments and, so far as can be judged, the public are well satisfied with the work done by the various Port Trusts. The Commissioners of Port Trusts are the only members of local public bodies who receive a small fee for each attendance at meetings for business. No members of municipal councils, or of district or local boards, receive any fees for the performance of their local duties. PORT TRUSTS.

The Bombay Port Trust had during 1893-94 an income of Rx. 470,000, or Rx. 20,000 more than in the previous year. The increase accrued under wharfage and dock dues; it resulted partly from an increase in the shipping that entered, but mainly from the coasting steamers frequenting the docks more generally than they did in former years. The chief items of income were wharfage and dock fees, Rx. 245,000; ground and warehouse rents, Rx. 104,000. The expenditure of the year came to Rx. 462,000, of which the largest items were Rx. 210,000 for interest on and repayment of debt, and Rx. 128,000 outlay on docks; the deficit of the year was Rx. 1,300, against Rx. 15,500 in the previous year; it was met from the accumulated reserve of Rx. 137,000. The Port Trust debt at the end of the year was Rx. 4,850,000, and the Port Trust had spent up to date Rx. 5,361,000 on improving and adding to their property. The increase in the coasting craft frequenting the docks has caused a demand for further accommodation at the harbour walls, and this is being met. Among the more important works of the year were large reclamations of swamp land on the Trust property. The traffic of the year was notable for a shrinkage in the wheat exports and a large increase in the trade in seeds and cotton. Bombay.

The income of the Calcutta Port Trust during the year was Rx. 434,000, and the expenditure was Rx. 431,000, inclusive of the Kidderpore dock account. The new docks were opened in September 1892; they have cost Rx. 2,874,000, which sum raises the total Port Trust Debt to Rx. 3,902,000. Only 39 vessels resorted to the new docks during the year, but it is expected that recent changes will attract more shipping thither. The receipts at the docks came to Rx. 22,600, while the charges were Rx. 23,900. The two new rates imposed in 1892, namely, a port duty of four annas per ton and a rate of four annas per ton on all goods landed in or shipped from the port, yielded Rx. 117,000, or very nearly the sum estimated. The deficits on the docks for the year was Rx. 127,000, or Rx. 10,000 more than the yield of the special taxes. It is Calcutta.

PORT TRUSTS.

hoped that this deficit and the need for special taxes may grow less year by year. The largest item of Port expenditure was Rx. 168,000 for interest on the debt, besides Rx. 25,000 on sinking funds and repayments of loans. There was a large increase in the quantities of petroleum and tea using the warehouses of the Port Trust; the stock of petroleum in March 1894 was quite unprecedented, being over two million cases, or quadruple the stock in March 1893, besides oil that, for the first time, came in tank vessels, and was stored in reservoirs. A new light-ship and a new dredger were bought during the year at a cost of Rx. 31,800. There were 15 casualties in the Port and its approaches, of which only one was serious, as compared with 23 casualties in the preceding year. The number and tonnage of vessels entering and leaving the Port during the last five years has been:—

	1889-90.	1890-91.	1891-92.	1892-93.	1893 94.
Number of vessels -	2,056.	2,096	2,204	2,126	2,004
Gross tonnage - -	4,454,000	4,948,000	5,324,000	5,267,000	5,187,000

Rangoon.

The year 1893-94 showed a further increase of 31,000 tons, or nearly 2 per cent. in the shipping visiting the Port of Rangoon, though the tonnage of steamers direct from Europe by the Suez Canal again decreased. The revenue of the Port Trust decreased 4 per cent., as compared with 1892–93, while the expenditure increased 16 per cent. The decrease of revenue was due in part to a reduction of 20 per cent. in the rates of fees for using jetties, and in part to the general depression of the import trade caused by low prices of rice. The total net charge on account of interest on the Port debts was Rx. 2,500; and Rx. 5,000 of debt was paid off during the year. Rx. 47,000 were spent on original works of improvement, among which were extensions of wharves and jetties, reclamation of the strand bank, and other permanent improvements; a part of this outlay was met by selling out investments to the value of Rx. 20,800. Fourteen accidents to shipping took place during the year in the harbour and approaches; in only two cases was material damage done.

Madras.

The receipts of the Madras Port Trust were Rx. 51,100, or Rx. 500 less than in the preceding year, and the expenditure of the year was Rx. 50,800. Trade was dull, though there were large receipts of grain from the coast ports. There was a general increase of imports, especially under coal and petroleum. Except under coffee and hides, there was a general increase in all the chief articles of export, especially in cotton and ground nuts. A further expenditure of Rx. 22,800 was incurred on the Madras harbour works, against Rx. 25,600 in the previous year; and by the end of the year 1893-94 the total outlay had reached Rx. 1,219,000, against the total sanctioned estimate of Rx. 1,238,000. The northern arm of the harbour was completed; and it is expected that the southern arm will be finished by July 1895.

Karachi.

The income and expenditure of the Karachi Port Trust were respectively Rx. 86,000 and Rx. 55,000, as compared with Rx. 64,000 and Rx. 49,000 in the previous year. There was a large increase in the exports of grain and seeds, and in the imports of railway material, petroleum, and gunny-bags. The grain exports were, however, far below those of the year 1891-92, when 618,000 tons of grain were despatched from Karachi, as compared with 225,000 in 1892-93, and 376,000 in 1893-94. The exports of oil-seeds were more than double those of any previous year. The principal improvements of the year were the enlarging of the Manora breakwater and the deepening of the port entrance and channel, from which 593,000 tons of sand were removed by dredging during the year. There are now 24 feet of water at low-water spring-tides at the shallowest point of the channel.

There are other minor ports in which smaller sums are raised yearly and expended

expended on improvements. The value of the total foreign trade of the five principal ports during the past 10 years is set forth below :— PORT TRUSTS.

NAME OF PORT.	Value of the Total Foreign Trade, in Merchandise only, during the Year.			
	1883-84.	1891-92.	1892-93.	1893-94.
	Rx.	Rx.	Rx.	Rx.
Bombay - - - - - - -	53,257,000	66,352,000	65,674,000	67,999,000
Calcutta - - - - - - -	57,335,000	63,932,000	63,640,000	69,927,000
Rangoon - - - - - - -	7,810,000	12,615,000	12,525,000	10,799,000
Madras - - - - - - -	7,823,000	8,918,000	9,068,000	10,304,000
Karachi - - - - - - -	5,048,000	11,311,000	7,546,000	11,040,000

The trade of Calcutta and Bombay was increased by the exceptionally large importations of piece-goods; but in Bombay the export trade shrank in consequence of the temporary depression in the yarn trade with China. Rangoon suffered from the low price of rice, its staple export; Karachi had increased exports of wheat and rape-seed, and increased imports of piece-goods.

STATEMENT showing the Number of Municipalities in India, their Receipts and their Expenditure, for the Year 1893–94.

	Bengal.		North Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.		Bombay.		Minor Provinces.	TOTAL.
	Presidency Corporation.	District Municipalities.						Presidency Corporation.	District Municipalities.	Presidency Corporation.	District Municipalities.		
Number of Municipalities	1	146	103	149	40	55	12	1	55	1	175	19	757
Population according to the Census of 1891	681,560	2,731,182	3,154,741	2,014,833	836,196	695,464	75,156	452,518	1,648,449	821,764	2,292,208	262,832	15,666,903
Receipts:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Octroi	- -	- -	263,365	287,256	- -	78,970	–	3,503	- -	121,250	159,094	27,894	941,332
Other Taxation	402,011	217,990	56,905	18,395	121,308	23,505	8,846	86,074	136,218	414,102	134,346	2,839	1,622,539
Sources other than Taxation (excluding Deposits and Advances).	151,616	62,093	76,941	107,384	208,230	28,255	6,553	31,974	83,974	170,302	117,491	11,900	1,056,713
Loans	- -	29,800	183,970	13,639	99,800	- -	–	- -	25,050	573,273	52,050	539	978,121
TOTAL (1893-94) Rx.	553,627	309,883	581,181	426,674	429,338	130,730	15,399	121,551	245,242	1,278,927	462,981	43,172	4,598,705
TOTAL (1892-93) Rx.	564,940	292,405	499,532	432,918	316,317	134,404	15,325	125,863	246,393	692,293	471,442	49,997	3,841,829
Expenditure:													
Cost of Collection and Administration	47,944	33,733	46,144	60,091	30,150	32,104	1,778	10,925	20,037	50,943	50,725	8,150	392,724
Public Health and Conveniences	274,897	217,259	383,230	179,838	263,666	61,679	11,257	79,515	190,621	402,039	275,027	18,878	2,357,956
Public Safety	39,484	20,898	57,590	60,511	27,172	1,068	473	7,029	9,938	86,050	24,599	3,865	338,677
Repayment of and Interest on Debt	108,216	2,385	24,560	16,575	21,128	4,248	73	13,294	2,594	172,724	14,317	1,903	382,017
Miscellaneous	30,130	27,312	41,372	91,434	60,824	21,584	1,007	10,282	39,652	632,302	90,925	9,033	1,055,857
TOTAL (1893-94) Rx.	500,671	301,587	552,896	408,499	402,940	120,683	14,588	121,045	262,842	1,344,058	455,593	41,829	4,527,231
TOTAL (1892-93) Rx.	626,298	290,698	532,943	448,895	293,208	152,942	15,160	105,801	244,076	891,950	306,793	52,297	4,050,971

SANITATION.

SANITATION.

The general health of the European troops in India during 1893 was better than in the previous year. The total admissions into hospital were in the ratio of 1,415 per 1,000 of the average strength of 70,091, against 1,517 in 1892; the daily average sick-rate was 87, or three per 1,000 more, and the death-rate was 12·61, as compared with 17·07. The chief causes of admission were, as usual, venereal diseases and ague, which accounted for 33 and 26 per cent. respectively of the total sickness. Enteric fever was the chief cause of mortality, yielding a death-rate of 5·29 per 1,000, a slight decrease on 5·52, the ratio of the previous year. This fever alone caused 42 per cent. of the total deaths. The liability of young and unacclimatised soldiers to enteric fever is again shown in the year's statistics, for among troops under 25 years of age the death-rate from this disease was 7·77 per 1,000, while among men between the ages of 25 and 29, and between 30 and 34, the mortality equalled 2·91 and 2·08 per 1,000 respectively; and whereas among men of less than two years' service in India the death-rate from enteric fever was 9·88 per 1,000, among men of three to five years' service it was 3·20, and among men of six to ten years' service the rate was 1·89 per 1,000. European troops.

There was very little cholera among the European troops in 1893; the fatal cases decreased from 121, or 1·78 per 1,000 of strength in 1892, to 10 or 0·14. Of these, five occurred among troops in the Bengal Army, against 102 in the previous year; four in the Madras Army, as compared with 27, and one in the Bombay Army against 12.

The loss to the whole European Army in India by invaliding during 1893 amounted to 1,769 men, equal to 25·25 per 1,000 of strength, against 1,661, or 24·37 in 1892. Of the three armies, the proportion of invalids to strength was again highest in Madras, viz., 26·09; in the case of Bengal the proportion was 25·99, and in that of Bombay, 22·05. Out of the total number invalided, 39 per cent. were discharged as unfit for further service, being 1 per cent. less than in 1892. As regards the influence of age and length of residence in India upon invaliding, 57·43 per cent. of the number invalided were under 25 years of age, against 53·41 in 1892, while 35 per cent. were of less than two years' service, and 80 per cent. were of less than five years' service. In the European Army in India, 79 per cent. of the total strength had seen less than five years' service.

The Native troops were remarkably healthy in 1893. On an average strength of 127,091 the admissions into hospital were in the ratio of 862 per 1,000, against 1,092 in 1892; the daily sick-rate was 32, a decrease of five per 1,000, and the death-rate was 10·29, against 14·97. Ague continued to rank first among the causes of admission, and yielded 38 per cent. of the total. Respiratory diseases, as usual, were the chief causes of death, and represented a ratio of 3·80 per 1,000 of average strength, against 4·27 in 1892. The death-rates under this head of all the principal groups of the Native Army were lower than in 1892. Pneumonia alone accounted for 349 deaths, or 2·75 per 1,000 of strength, a ratio about four times as high as that among European soldiers from this disease. From malarial fevers there were 235 deaths, equal to 1·85 per 1,000. From these two causes, pneumonia and malarial fever, nearly half of the total deaths were recorded. From cholera the death-rate was only 0·20 per 1,000, against 2·14 in 1892. Fevers of all kinds were the cause of 19 per cent. of the total deaths, while among the European troops 48 per cent. of all the deaths were from fevers. From ague, remittent and simple continued fevers, the deaths among the Native troops yielded a ratio of 1·87 per 1,000. Among the European troops the proportion was only 0·70. On the other hand, the death-rate from enteric fever among the Native troops was only 0·04 per 1,000, as compared with 5·29 among the European troops. Native troops.

The health of the prison population of India showed a marked improvement in 1893, as compared with the previous year. The ratios of admission into hospital and daily average sick per 1,000 of strength were 907·42 and 34·94 respectively, against 1,116·87 and 37·94 in 1892. The death-rate fell from 35·94 per 1,000 to 24·30. The average rate of mortality ranged from 75·56 in Jails.

SANITATION.

Coorg to 17·17 in the North Western Provinces and Oudh. The decrease in the death-rate was spread over all the 10 provinces except Coorg and Berar, the mortality of the former having risen from 30·34 per 1,000 to 75·56, and that of the latter from 17·16 to 28·00. The decrease in the general death-rate was mainly due to the diminution of cholera and bowel complaints, the deaths from which fell respectively from 510 and 820 in 1892 to 92 and 639. The Punjab, Berar, and Coorg jails were entirely free from cholera. The proportion of deaths from this disease, per 1,000 of strength, was highest in the jails of Assam, viz., 3·79 against 9·31 in 1892; but the greatest decrease occurred in the Madras jails, where the cholera mortality fell from 17·20 to 2·16 per 1,000.

General population.

Births were registered throughout all the 10 provinces during 1893. The highest mean provincial birth-rates recorded were: the North Western Provinces and Oudh, 40·95 per 1,000 of population; Berar, 39·3; the Central Provinces, 38·23; Bengal, 35·66; and Bombay, 35·30. In the remaining provinces the rates ranged between 34·99 in the Punjab, and 21·22 in Coorg. Of the 10 provinces, the birth-rates were higher in four than in the previous year, and in the remainder they were lower. In all but two of the provinces (Assam and Coorg) the birth-rates exceeded the death-rates, the excess per 1,000 varying between 16 85 in the North Western Provinces and Oudh, and 4·28 in Lower Burma. The year 1893 was a healthy one, and the death-rate for all the provinces fell from 32·47 per 1,000 of population in 1892 to 25·74. The highest death-rates were registered in Berar, 32·6; and in Assam, 30·28. In the remaining eight provinces the rates ranged from 28·21 in Bengal to 19·3 in Madras. In all the provinces, except Berar and Lower Burma, fewer deaths were registered than in 1892. The greatest improvement occurred in the Punjab, where the death-rate fell from 49·48 to 28·13.

From all the chief diseases fewer deaths were registered than in 1892. From cholera there were only 216,827 deaths in 1893, being in the ratio of 1·01 per 1,000 of population, against 724,015, or 3·39, in the previous year. The diminution was general over almost all the country, Assam being the only province showing an increase, which was very small. Except in this instance, also the mortality from cholera in 1893 was less in each province than the mean of the previous five years. The death-rate from the disease in Assam was 4·35 per 1,000, which was a slight increase on the rate of the previous year of 4·29. The greatest improvement occurred in the North Western Provinces, the Central Provinces, and the Punjab, where the cholera death-rates declined from 4·15, 4·21, and 3·70, respectively, to 0·26, 0·06, and 0·03.

From small-pox there were 63,178 deaths, representing a rate of 0·29 per 1,000, against 92,680, or 0·43, in 1892. The diminution of 29,502 was distributed over Bengal, the North Western Provinces and Oudh, the Punjab, Madras, and Coorg. Only in the latter province did the death-rate exceed one per 1,000 (1·24), the next highest being 0·68 in Lower Burma, and 0·53 in Assam.

Fevers were less prevalent than in 1892, and in the combined provinces the total deaths numbered 3,716,936, equal to 17·44 per 1,000 of population, as compared with 4,589,496, or 21 06. This shows a decrease in 1893 of 872,560 deaths, in which all the provinces, with the exception of Berar and Lower Burma, participated. The reduction in fever mortality was most marked in the Punjab and the North Western Provinces and Oudh, whose fever death-rates declined from 34·82 and 24·90 respectively in 1892 to 18·95 and 18·84 in 1893.

The total number of deaths returned under dysentery and diarrhœa was 196,667, or 0·92 per 1,000, against 231,427, or 1·07 in 1892. Of the 10 provinces, all but Berar shared in the decrease of 34,760.

Vaccination.

The total number of successful vaccinations performed during 1893–94 was 6,716,134, being an increase of 319,652 on the previous year's work. More than 2¼ millions of the total were under one year of age, and three millions were between the ages of one and six years. The proportion of population protected by the year's operations ranged from 56·96 per 1,000 in Coorg, and 37·72 in the Punjab, to 24·54 in Bengal. In the vaccination of infants the best results were, as usual, obtained from Berar, where 61 per cent. of the children born during the year, estimating the annual births at 40 per 1,000 of population, were protected against small-pox. In two other provinces (Bombay

and

and the Central Provinces) the percentage was over 50; the Punjab followed with a percentage of 49·4, and in the remainder it ranged from 27·7 in the North Western Provinces and Oudh to 12·9 in Bengal. SANITATION.

Some of the important sanitary works which have been either completed, in progress, or under consideration during 1893, were as follows:—In Calcutta progress continued to be made in the improvement of bustees, or cluster of Native huts. Through the completion of two new tanks the settling tanks at the Palta water works have now a united working capacity of 105 million gallons, or five times the requisite daily supply of filtered water in the municipality. The supply is equal to 36·66 gallons per head of population for the town proper, and 19·55 gallons for the suburban area. In the course of the year the distribution pipes were extended to nearly 16½ miles, bringing the total length up to 302·09 miles, and the total number of premises connected had reached 24,315. In addition to the filtered supply, over 4½ million gallons of unfiltered water are supplied daily in the town and suburbs. Further improvements were also carried out in the drainage of the municipality. At the close of the year (1893–94) the total length of sewers was 204 miles, and the number of premises connected with them was 27,997, of which 437 connections were made during the year. Sewerage works in the suburban area were progressing, and a drainage project was under consideration. Bengal.

The municipalities of the interior of Bengal spent Rx. 161,396 on sanitary works, an increase of Rx. 13,125 on the sum expended in 1892. The several local bodies spent Rx. 21,773 in improving rural areas against Rx. 33,466; while in towns sanitary works were carried out at an estimated cost of Rx. 37,920 against Rx. 6,287. A further sum of Rx. 36,989, contributed by private individuals, was expended chiefly on tanks and wells. The Bengal Sanitary Board held no formal meeting, owing to the great difficulty in arranging a time when all the members could be present together; but the papers in particular cases were circulated to each member for the record of his opinion, after which, the necessary action was taken. The chief work undertaken by the Board was the preparation of a scheme for supplying filtered water to Howrah, the intake from the Hooghly river to be at Serampore, several miles above Calcutta, where the water is said to be of very good quality. Survey work for the drainage and possible sewering of Howrah was still being carried on. The Sanitary Commissioner and the Engineer to the Board were engaged for two months on a Commission to inquire into the purity of the Darjeeling water supply. Their report had been submitted to the Local Government, and the Board were considering the measures to be adopted. In addition the Board advised municipalities on various projects, notably on the sewering and drainage of Dacca, and improving the drainage of Jessore.

In the North-Western Provinces and Oudh the water works at Agra, Allahabad, and Benares worked satisfactorily during the year, while those at Mussoorie had commenced working, and those at Cawnpur and Lucknow were nearly completed. The construction of the Benares sewerage works was in progress. At Naini Tal the water works and sewerage scheme were completed. Various sanitary improvements were also carried out at Hardwar. The Sanitary Board held several meetings during the year, but the work done was not great. The constitution of the Board has been revised, and the Government Sanitary Engineer is now a member. The rules framed by the Board to give effect to the Village Sanitation Act were still under their consideration. North-Western Provinces and Oudh.

In the Punjab fair progress was made in sanitary work. Among the more important works completed were the Simla water supply extension and the Ludhiana drainage scheme. The Delhi water works were nearly completed and the drainage scheme was in progress. The intramural drainage scheme at Gujranwala was also practically completed. At Kohat the water supply was made available for general use in June 1893, and good progress was made with the Umballa city water works. A number of works of public utility were also constructed during the year by private individuals at their own expense. A scheme for supplying the town of Bhiwani with a water supply from the Western Jumna Canal was referred to the provincial Sanitary Board. The Board met twice during the year, when they considered several important sanitary schemes. The appointment of a provincial Sanitary Engineer has been held in abeyance for want of the necessary funds. Punjab.

SANITATION.

Burma.

In Burma several sanitary improvements were effected during the year. Progress was made with the works for improving the water supply of Rangoon and in reclaiming low-lying lands to the east of the city; the Shone and Ault sewerage system was also further extended in the town. Conservancy schemes were being carried out at Moulmein and Prome, and cesspits closed. Proposals for an improved conservancy system at Akyab had been formulated. Little was done by the Sanitary Board beyond considering the surveys of selected towns, pending the completion of which the appointment of a Sanitary Engineer is still deferred.

Central Provinces.

In the Central Provinces the new water supply at Raipur was reported to be much appreciated by the inhabitants, and the provision of a similar boon to other municipalities was under consideration. Good work was being prosecuted in villages under the direction of the Sanitary Board, consisting chiefly of village water supplies by construction of new wells, improvements of old ones, and the drainage and cleansing of sites. The constitution of the Sanitary Board was under revision, and fresh rules were being framed for the conduct of its business.

Assam.

In Assam the Shillong water works were completed, the water supply of Gauhati was improved and a beginning had been made towards providing the town of Sylhet with pure water. The importance of a similar boon was generally recognised by most of the local boards and municipalities in the province. The municipalities spent 60 per cent. of their income on sanitary works. The Sanitary Board do not find it necessary to hold formal meetings, but transacts its business by circulating papers among its members. The Board was mainly occupied during the year in directing operations for improving the water supply of villages.

Madras.

In the Madras Presidency sanitary work consisted chiefly in the improvement of water supply, cleansing, repairing, and construction of tanks and wells, and other minor works. The municipalities allotted 52·8 per cent. of their income for sanitary purposes, and the district boards 8 per cent. A great deal of practical and useful work was performed by the Sanitary Engineer and his subordinates during the year. Surveys in connection with water supply or drainage were completed by the Sanitary Engineering Department in three municipalities, and two water supply schemes and one drainage scheme were submitted to the Government. Nine projects, estimated to cost Rx. 164,000, were under execution, of which the Cuddapah water supply and Coonoor drainage works were completed. The Department also scrutinised 123 plans and 150 estimates for sanitary work of the value of Rx. 27,535, besides furnishing a number of plans and diagrams for local bodies. Several improvements were carried out in the drainage and water supply of various parts of Madras City. The Black Town drainage scheme was completed at a total cost of Rx. 107,105. The water from the Red Hills Lake taken in four different places was tested, and in two cases it was declared usable, and in the other two suspicious. There were 1,473 new services laid, and 1,215 existing services were extended. The report of Mr. Cousins, the sanitary expert, was under consideration. The estimated cost of carrying out his drainage scheme is 23 lakhs, and for the improvement of the water supply 21 lakhs.

Bombay.

In the Bombay Presidency progress was made in Sind with the Karachi drainage works and the Sukkur water works. The Ahmedabad water supply and drainage schemes were extended, and schemes for improving the water supply of Dakor, Broach, and Kalyan were under preparation. The new water works at Dhulia were approaching completion, and those at Hubli were opened for public use at the close of the year; while the similar project for Dharwar was awaiting the final orders of the Government. The Sanitary Board travelled through Sind and gave advice to several municipalities concerning improvements in water supply and drainage, and expressed their opinion regarding the general sanitary details of a large number of miscellaneous projects. The Board also drew out a plan to show the general lines on which rubbish and night-soil depôts should be laid out, and distributed copies of the plan to the different municipalities. Copies of a plan for a slaughter-house for small towns were similarly distributed. Three special drainage and sewerage works were in course of construction in Bombay City, the

the estimates for which aggregated over 11 lakhs. Plans and estimates were also prepared for drainage and sewage works in various districts at an estimated cost of over 29½ lakhs. The supply of water from the Tansa works continued to be adequate for the city. The repairing of the Bhandarvada reservoir was completed. SANITATION.

In Berar no large sanitary works were undertaken, but a good deal of useful work was done, especially under water supply. The municipalities spent 65 per cent. of their income on sanitary works. A drainage scheme for the town of Amraoti, to cost nearly 5 lakhs, was approved. In Akola the sum of Rx. 14,600 was contributed towards the cost of the water supply scheme which was approaching completion. Steady progress was being made with the Shegaon drainage system. The total expenditure incurred by district local boards was Rx. 9,358, against Rx. 14,857 in 1892. The sanitary board assembled six times during the year, once at each district headquarters. The board considered the several recommendations made in the sanitary surveys of towns and villages, and recorded such remarks and suggestions as seemed necessary for the guidance of the local bodies concerned. Out of a total of 39 towns only eight remained to be surveyed, but a very large proportion of the villages had still to be taken in hand. Berar.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY.

CHAPTER III.

CRIME AND POLICE.

CRIME AND POLICE.

THE year under review was marked by no radical change in the organisation of the Indian Police Force. One examination has been held in London for admission to the rank of Assistant Superintendent under the new scheme approved by the Secretary of State in 1892, but the system has been so recently introduced that it is not yet possible to form any opinion on its merits.

The schools which had been opened in many provinces for the instruction of constables and subordinate officers did good work, and the standard of education rose throughout the force.

Much attention was paid to the subject of the supervision of habitual offenders, and the registration of bad characters. The Bertillon system of anthropometry for the identification of criminals was introduced in many provinces.

The paragraphs that follow show, except where it is otherwise stated, the number of offences reported to have occurred during the year. It is necessary to bear in mind that a considerable proportion of these (about 6 per cent.) were cases in which complaints were made of offences that had not occurred.

Bengal.

During the year under review 137,898 cognisable offences were reported in the Lower Provinces of Bengal, as compared with 146,185 in 1892–93, and 128,471 in 1891–92. This decrease is smaller than might have been expected considering the fall in the price of food-grains; but allowance must be made for the continued improvement in crime reporting. In non-cognisable offences there has been an inconsiderable decrease—from 121,624 to 121,490. The total number of persons arrested on such charges was 94,855; and 71,761 were convicted, or 75·6 per cent. as against 74·9 in 1892–93.

The total sanctioned strength of the force amounted to 23,719, against 23,390 at the close of 1892; and its cost was Rx. 435,493, an increase of Rx. 5,487. An important departure in police administration was made during the year by the opening of appointments in the investigating staff to public competition. Candidates are required to satisfy certain stringent conditions before they are admitted to examination, and are afterwards put through a probationary course of instruction.

In the town of Calcutta cognisable and non-cognisable offences fell from 59,237 to 47,794; 8,807 arrests were made under the Penal Code, and 7,470 convictions secured. The value of the property stolen during the year was Rx. 12,778, of which 72·73 per cent. was recovered.

North-West Provinces and Oudh.

The record of crime in the North-Western Provinces and Oudh Provinces during the year under review was slightly less than in 1892–93, and very considerably less than in 1891–92. But while petty crimes have distinctly diminished, there has been an increase in serious crime. The number of dacoities, for example, rose from 198 in 1892–93 to 237; but the complete break-up of three organised bands of dacoits may be expected to lead to a diminution of offences under this head. 110,651 cognisable cases were investigated during the year: of these 64,550 went up for trial, and 54,187 resulted in convictions. The percentage of convictions to decided cases was 84, being exactly the same as in each of the last three years. Reports of non-cognisable offences increased from 103,275 to 106,890: for such offences process issued against 142,121 persons, of whom 44,451 were convicted. The value of the property stolen during the year was Rx. 196,245, and of that recovered Rx. 65,795 or 33·52 per cent.

The strength of the force was 23,031 officers and men, and it cost Rx. 489,597. There was little indication of any improvement in the *morale* of the force, and the number of dismissals and punishment remained high.

Punjab.

The number of cognisable offences reported to have been committed in the Punjab during the year was 68,594, a decrease of 6,708 as compared with the previous year. Although this decrease is shown in nearly every class of crime, including serious offences against the person, yet the number of murders has increased to 480, as compared with 470 in 1892–93, and 180 in 1863. The number

number of persons who were arrested, or who appeared on other process, during the year was 76,708, of whom 46,082 were finally convicted. Property to the value of Rx. 107,434 was stolen during the year, of which 43 per cent. was recovered, against 38 per cent. in 1892-93. CRIME AND POLICE.

The sanctioned strength of the force was 20,352 officers and men, and it cost Rx. 343,827. Though the number of punishments in the force has increased, the dismissals have decreased. The Police Training School at Phillour continues to do good work, and was attended by 431 men during the year; the proportion of literate men in the force has increased from 25 to 26 per cent.

The Burma police is organised in two branches, Military and Civil. Burma.

In Lower Burma the strength of the Civil Police was raised during the year from 5,322 to 5,710 officers and men, while that of the Military Police was reduced from 3,449 to 3,430. The conduct of both forces was satisfactory, and the policy of establishing training schools at the headquarters of districts is bearing good fruit. The cost of the Military Police increased from Rx. 65,544 to Rx. 80,281, but the increase is merely nominal, the Lower Burma battalions not having been completely organised in the earlier year.

The number of true cases of cognisable crime reported during the year increased from 30,161 to 33,370. But the increase of crimes of violence was not large, and under the heads of dacoity and murder there was actually a slight decrease.

In Upper Burma there was a slight increase from 8,706 to 8,745 in the total number of officers and men in the Civil Police, while the Military Police was further reduced from 13,221 to 12,317. Notwithstanding this reduction, however, there was an increase in the total cost of the Military force from Rx. 410,727 to Rx. 412,729 owing to the operations in the Kachin Hills in the open season of 1892-93. The conduct of both forces was good, that of the Military force in the Kachin campaign calling for especial commendation.

The number of true cognisable offences showed a satisfactory decrease from 15,101 to 13,943 – a decrease which occurred under every head of crime. The complete destruction of a gang of dacoits, which had for years disturbed the peace of the Thayetmyo and Minbu districts, is one of the most satisfactory features of the year's work.

The number of offences reported in the Central Provinces during 1893–94 was 22,231, compared with 24,282 in 1892-93. The decrease is ascribed to the improved condition of the people owing to the low prices of food-grains. Offences against the State (including rioting) fell from the abnormal number of 319 in the previous year to 273 in 1893–94, and it is gratifying to note that ill-feeling between Hindus and Muhammadans manifested itself but seldom, and never led to serious disturbances. The number of murders increased from 144 to 160, and there was a falling-off in the convictions for murder from 40 per cent. to 30 per cent. 20,401 persons were arrested during the year, of whom 68·10 per cent. were convicted. Property to the value of Rx. 52,758 was stolen, and 30 per cent. of it recovered. 11,298 cases of non-cognisable crime were reported, and process issued against 17,922 persons, of whom 8,110 were convicted. Central Provinces.

The sanctioned strength of the force was 8,035 officers and men—a decrease of 35. The health and conduct of the force were said to be good.

The number of cognisable cases reported in Assam during 1893–94 was 11,748, or an increase of 504 over the figure for the previous year. This increase has taken place mainly in offences against the person and property, but the number of true murder cases has diminished, and the percentage of convictions for murder has risen from 9·8 to 30·3 per cent. Of non-cognisable offences 18,265 cases were instituted, and process issued in 8,302; 12,098 persons appeared before the Courts, and 7,391 were convicted. The value of the property stolen during the year was Rx. 6,201, of which 39·7 per cent. was recovered. Assam.

Like Burma, Assam has a Military as well as a Civil police. The actual strength of the former during 1893–94 was 2,675 (an increase of 119), and its cost Rx. 71,626 (an increase of Rx. 1,474); the strength of the Civil force was 2,105 (a decrease of 13), and its cost Rx. 44,802 (an increase of Rx. 2,292). To these

CRIME AND POLICE. these must be added 6,999 Rural and Union police, costing Rx. 30,098. The increase in the total cost of the establishment is chiefly due to the reorganisation of the Military Battalions in Cachar and the North Lushai Hills.

Hyderabad. Cognisable crime as a whole decreased in the Hyderabad Assigned Districts—from 5,880 to 5,637. There was a decrease in dacoities and robberies, but an increase in murders—from 29 to 31. The working of the police improved, the percentage of all cases ending in conviction being 30·2 against 28·8 in 1892–93. The value of the property stolen during the year was Rx. 20,257, of which 27·2 per cent. was recovered.

The force was increased by three officers and 14 men, and its present strength is 555 officers and 2,363 men. Though the police maintained at Secunderabad and for the Hyderabad Railway bring the total up to 3,420, the strength of the force is still inadequate, and it is to be regretted that want of funds necessitated the rejection of a scheme for its increase, which was submitted during the year.

Madras. In Madras the year under review shows a considerable decrease of crime under the head of offences against property, but an increase under the most serious offence against the person: the number of murders, 393, was the largest recorded for 30 years, and the percentage of detections was only 27·7. Dacoities, however, decreased from 339 to 214, a figure slightly below the average for the five years preceding 1891. The number of cognisable offences reported during the year was 135,476, against 137,103 in 1892–93; the percentage of detections was 73·9 against 72·2, and that of convictions, 61·2 against 61·7. Non-cognisable offences show an increase of 3,861 cases—119,342 as compared with 115,481 in 1892–93, and process ensued in 111,832 cases; 204,788 persons appeared before the Courts, and 65,762 were convicted.

The actual strength of the force was 22,846 officers and men, and the cost was Rx. 398,370, a slight increase over the previous year owing to the raising of the sanctioned strength of the force by 248 men. Discipline appears to have been satisfactory, and education improved, the percentage of literate men being 82·7 against 81·8 in 1892–93.

Bombay. The figures for 1893–94 show a further reduction in the number of cognisable offences in the Presidency of Bombay, 14,656 cases being reported as against 15,566 in 1892–93. This decrease is observable under almost every head, but murders increased from 155 to 173. The number of real Penal Code cases was 9,738, resulting in convictions in 5,118 cases. Of non-cognisable crime 126,106 cases were reported—an increase of 19,509 over the figures for 1892–3; the number of persons who appeared before the Courts was 162,436, of whom 47,369, or 29·16 per cent., were convicted. Of the districts showing an increase Poona comes first with 22,429 against 9,507 in the previous year. The value of property stolen during the year was Rx. 65,610, against Rx. 88,135 in 1892–93, and 71 per cent. of it was recovered, against 66 per cent. in the previous year.

At the close of the year the total sanctioned strength of the force was 14,797, and its cost was Rx. 237,180. The general result of police work has steadily improved, and a higher standard of discipline was maintained. It is satisfactory also to observe that the percentage of literates in the force is well above the average of the previous three years.

In Bombay Town there was an increase of 4,544 in the number of cognisable offences reported, for 1,242 of which the riots of August 1893 are responsible. While the increase is ascribed to less effectual police supervision, it is pointed out that the strength of the force remained stationary with many additional duties imposed upon it. There were 7,959 cases of non-cognisable offences; 6,573 persons appeared before the Courts, and 39·49 per cent. were convicted.

In Sind there was a decrease of true cognisable crime during the year, the number of cases declining from 7,194 to 6,032. This is attributed in large measure to the improved condition of the people owing to a more abundant harvest. The number of murders was, however, high—59 against 49 in 1892–93. Non-cognisable crime shows an increase from 12,243 to 13,796, and the number of persons appearing before the Courts on charges of such offences has also risen from 20,069 to 22,731. The force was 3,974 strong and cost Rx. 82,702.

The

CRIME AND POLICE.

The number of cognisable cases in Coorg increased during the year from 1,000 to 1,032, a large number of which arose out of unsettled boundary disputes. The police arrested 1,544 persons, against 860 in 1892; of these 33·48 per cent. were released without being brought before the magistrate. Coorg.

The force was re-organised in April 1893, and the unsatisfactory nature of the year's work may, perhaps, be partly accounted for by the want of experience of the sub-inspectors, who were all, with one exception, new men.

CRIMINAL JUSTICE.

CRIMINAL JUSTICE.

During the year under review 214,144 persons were tried in Magistrates' Courts in Bengal, and 26·5 per cent. of these were dealt with by honorary magistrates. The percentage is the same as that of 1892–93, although the number of benches sitting decreased from 216 to 210. The number of European British subjects under trial was 115, of whom 58 were convicted. The general percentage of convictions in all courts was 66·4. A decrease was observed in respect of offences against public health, religion, and tranquillity, but the number of offences against property rose considerably, and that of offences concerning public servants slightly. Bengal.

The number of appeals during the year shows a decided decrease, as compared with the increase of the two previous years, while the percentage of unsuccessful appeals has also declined from 61·2 to 51·6 in the High Court, and from 31·9 to 30·8 in Courts of Session. In Magistrates' Courts, on the other hand, it has risen from 15·1 to 17·3. The High Court in the exercise of its powers of revision dealt with 1,084 cases, affirming the order in 573, reversing it in 301, and ordering a new trial in 125.

Trials were held by jury in the districts of Burdwan, Dacca, Hooghly, Murshedabad, Nadia, Patna, and the 24 Pergunas. At the beginning of the year such trials were restricted to offences against the public tranquillity, public justice (false evidence), the human body, and property, and those relating to documents and trade or property marks. The number of trials so held was 1,158, in 1,080 of which the judge approved the verdict; in 25 cases the verdict was not approved, and in 17 reference was made to the High Court, who set the verdict aside in respect of 16 persons.

North-Western Provinces and Oudh.

Of the 102,780 cases brought to trial in the North-West Provinces and Oudh during 1893 about 19 per cent. were disposed of by benches of magistrates. The percentage of convictions, which rose in all courts except those of district magistrates, was 51 in the North-West Provinces, but in Oudh it fell from 44 in 1892 to 42, a decrease which is attributed to the increase in the number of petty offences. 148 European British subjects were brought to trial during the year, of whom 80 were convicted. There were 99 jury trials affecting 131 persons. As regards 106 the judge agreed with the verdict; out of the remaining 25, nine were referred to the High Court, which reversed the verdict in every case. Appeals were more numerous, but were unsuccessful in 67 per cent. of the cases in the North-West Provinces and 70 per cent. in Oudh. Sentence of death was confirmed in 57 cases out of 96 disposed of in the North-West Provinces, and in 28 cases out of 43 in Oudh.

Punjab.

The number of offences reported in the Punjab during the year 1893–94 was 169,596, of which 53,498 were thrown out *in limine*. Of the remainder, returned as true, 7,215 were disposed of by boards of honorary magistrates, and 10,590 by honorary magistrates sitting singly, the percentage of persons convicted by the former amounting to 43, by the latter to 23. The percentage of convictions in all Magistrates' Courts has fallen from 43 in 1892-93 to 39. Sessions Courts dealt with 438 cases, and the percentage of persons convicted was 58. In frontier districts 881 cases were referred to Councils of Elders, and resulted in 466 convictions. Ninety-two European British subjects were tried during the year, of whom 43 were convicted. There were 18,952 appeals, about 32 per cent. of appealable decisions being appealed against; 64 per cent. of these were unsuccessful in Magistrates' Courts, 63·7 in Courts of Session, and 46 in the Chief Court. Of applications made for revision about 66 per cent. were rejected. Sentence of death was passed in 158 cases, in 74 of which it was confirmed.

CRIMINAL JUSTICE. Burma.

The number of persons brought to trial in 1893–94 in Lower Burma was 69,110, of whom 12,636 (or over 3,000 more than in the previous year) appeared before honorary magistrates. The percentage of convictions was 60. There was an increase in the number of appeals during the year, and the results were much more favourable to appellants than in 1892–93, the percentage of sentences left untouched falling from 79 to 72. Before the Judicial Commissioner the proportion of unsuccessful appeals was 76 per cent., but the number of capital sentences confirmed by him was only 19 out of 51.

In Upper Burma there were 22,240 persons under trial, and the percentage of convictions was 66. The introduction of a new Criminal Justice Regulation caused appeals to district magistrates to rise from 97 to 203. Appeals to Courts of Session also rose from 526 to 580, but those to the Judicial Commissioner fell from 177 to 129, of which 76 per cent. were unsuccessful. Fewer cases were called for in revision.

Central Provinces.

In the Central Provinces 29,936 offences were reported during the year under review, and resulted in convictions in 52 per cent. of the cases. Of the total number of persons tried in Magistrates' Courts 32 per cent. were dealt with by honorary magistrates. In the infliction of punishments there was great room for improvement, a more severe scale being considered necessary in serious cases; undue leniency was especially shown in dealing with habitual offenders. There was a decrease of appeals in all courts. The percentage of unsuccessful appeals in Courts of Session was 81, before the Judicial Commissioner 82, and before magistrates 58.

Assam

There were 18 honorary magistrates in Assam during the year 1893–94, and 1,053 of the 15,103 cases disposed of were dealt with by them; 31,420 offences were reported, of which 23,690 were accepted as true – a considerable increase on the previous year, the increase being most remarkable in respect of offences against property. The percentage of convictions was 62·5; 54·8 in Sessions Courts, and 62·6 in Magistrates' Courts. The number of appeals instituted was larger than in 1892-93. Out of 57 dealt with by the High Court of Calcutta the conviction was confirmed in 40, while the subordinate courts confirmed the conviction in 1,053 out of 1,633. 79 cases were dealt with by the High Court in the exercise of its powers of revision, and the orders were upheld in 44·6 per cent. Subordinate Courts disposed of 1,164 applications for revision, but refused interference in 881.

Hyderabad

The percentage of work disposed of by benches of magistrates in the Hyderabad Assigned Districts during the year under review was 4·5, against 5·9 per cent. in 1892-93; on the other hand, the work done by Tahsildars has increased by 2·6 per cent., and now amounts to no less than 50 per cent. of the whole. The increased use made by District Magistrates of their enhanced powers has materially lessened the excessive amount of work which in previous years fell to the Sessions Courts. The percentage of convictions in Magistrates' Courts again shows an unexplained fall, from 39 to 35 per cent. Of appeals to all Courts 14·8 per cent. were rejected, and sentences were confirmed in a further 47·5 per cent.

Madras.

About 4 per cent. of the criminal business of Madras was done by village magistrates, and the increase in their work is a prominent feature of the year under review. Cases under the Penal Code showed an increase of 5,229 on the high figures of the previous year, but the percentage of convictions declined. The percentage of convictions in all cases before magistrates, which had increased progressively since 1889, has also declined slightly. The number of persons tried by jury was 1,124, as to whom the judge accepted the verdict in the case of 1,078. There was a great decrease in the proportion of sentences of imprisonment to total convictions, and the amount of fines imposed also diminished. On the other hand there was a tendency towards the more frequent infliction of whipping, chiefly in the case of juvenile offenders. About 10 per cent. of appealable sentences were appealed against, and about 55 per cent. of the appellants failed. Of sentences revised by the High Court about 28 per cent. were not interfered with, while 39 per cent. of the applications for revision were summarily rejected. Of 57 capital sentences 42 were confirmed by the High Court.

In

In the year under review there were 80 honorary magistrates in the Presidency proper, of whom 52 formed 10 benches, the rest sitting singly; and 45,061 persons, out of the 277,850 brought to trial during the year, appeared before them. The total number of offences reported during the year was 206,681, of which 171,878 were returned as true. The City of Bombay continues to be the most criminal of all the districts. The percentage of convictions in Magistrates' Courts rose from a little under 36 to 42½, and in Sessions Courts from 43 to 49. One hundred and forty-three persons were tried by jury in the High Court. In Sessions Courts 354 were tried by jury, the judge accepting the verdict in 341 cases; the other 13 were referred to the High Court, which set aside the verdict in nine cases. There was an increase in the number of appeals dealt with in the High Court from 601 to 786; of these 298 were rejected; in 278 cases the sentence was confirmed, in 73 reduced or altered, and in 52 reversed. There was a slight increase in the number of appeals to Courts of Session and magistrates. Out of the applications made for revision, 85 per cent. were dismissed by the High Court, 65 by Sessions Courts, and 77 by District Magistrates.

Criminal Justice. Bombay.

JAILS.

Jails.

At the beginning of the year 1893 the jail population in British India was 95,296. During the year 451,836 prisoners were admitted, 452,080 were discharged, and the year closed with a jail population of 95,052, the daily average being 94,964. The average female jail population was about 3 per cent. of the whole, but the percentage of females admitted and discharged within the year was between four and five. The convict population at the beginning of the year numbered 88,572; 176,458 convicts were received during the year, and 173,786 were discharged. The number of convicts undergoing sentence at the end of the year was 88,262; and the average daily number throughout the year was 87,554. The average proportion of female to male convicts was a little over 3 per cent. The number of convicts deported to the Andamans, or from Burma to Indian jails, shows a steady decrease, owing to (1) the retention in India of all but life-convicts, and (2) the steady pacification of Burma. The number of escapes decreased considerably in consequence of the general attention which has been paid to the subject.

Prisoners of all kinds.

Convicts.

Guarding of prisoners.

The proportions of convicts in each class to the total population of that class were as follows:—Buddhists and Jains, 1·4 per cent.; Native Christians, 0·9; Muhammadans, ·8; Hindus and Sikhs, ·5; all other classes, ·3.

Religion and nationality.

By far the greatest number of convicts were between 16 and 40 years of age, viz., 141,243; between 40 and 60 years of age, there were 29,836; over 60 years, 3,244; and under 16 years, 2,051.

Age.

The total number of juveniles in reformatory schools at the end of the year was 1,027, as compared with 1,029 at the end of the previous year. The working of these institutions was in the main satisfactory, and so were the reports on the lads who had been discharged from them.

Reformatories.

About 78 per cent. of the convicts imprisoned during the year were illiterate, and 6·5 per cent. could read and write. The endeavour to educate adult convicts was abandoned, and attempts at education in jails were restricted to such prisoners, under the age of 18, as were not transferred to reformatory schools. These were instructed, not only in reading and writing, but also, where possible, in some simple handicraft.

Education.

Among the convicts admitted to prison during the year there were more employés under Government or under municipal or local authorities, and more persons engaged in commerce and trade, but fewer agriculturists. In the case of female convicts, there was a decrease of all classes, except prostitutes.

Employment previous to conviction.

The percentage of convicts admitted for terms not exceeding one month was 36·05 against 37 in 1892; from one to three months, 19·22 against 19·67; from three to six months, 16·97 against 17·27; from six to twelve months, 13·75 against 12·85; from one to two years, 7·87 against 7·40; two to five years, 3·86 against 3·62: five to ten years, 1·03 against ·99; and exceeding ten years, ·05 (the same as in 1892). That of convicts sentenced to transportation for life was ·57

Sentences.

JAILS.

against ·49 in 1892, and to transportation for a term of years, ·30 against ·35 in 1892. The number sentenced to death was ·33, as compared with ·31 in 1892. The increase, therefore, took place chiefly among prisoners sentenced to periods above six months and not exceeding one year. In the case of 85·99 of the convicts admitted, the sentences did not exceed one year.

Habitual offenders.

The recognition of habitual offenders has not hitherto been effected on a satisfactory system, and the Bertillon system of anthropometry, though now introduced in most of the larger provinces, has not yet been worked for a sufficient time to afford definite results. The system has not yet been introduced in Bombay or Assam. In Bengal it made rapid strides during the year.

Jail employments.

The number of prisoners available for labour averaged 73,942. About 40 per cent. were employed on manufactures, and about 16 per cent. in the preparation of articles for consumption in jails; 5·24 per cent. were employed as prison officers; and the remainder as prison servants, in gardening, on jail repairs, or on outside labour.

Prison offences.

There was a large increase of 15 per cent. in the number of recorded offences committed by convicts—from 112,857 in 1892 to 134,284 in 1893. The principal increase was in offences relating to work and prison discipline. 364 convicts were sentenced to further punishment by criminal courts, as compared with 576 in the previous year, and punishments by prison officers increased by 21,000. Except in Burma, where some of the jails are very large and the prisoners appear to be more refractory than in other provinces, there was a decrease in the number of punishments by solitary confinement with reduced diet. In the absence of a uniform method of recording jail offences and punishments, no reasonable comparison can be made between the discipline enforced and the punishments awarded in various provinces. This subject was receiving the attention of the Government of India, and an Act was passed, under which rules were being prepared introducing a uniform system of discipline as far as practicable. Meanwhile, instructions had been given that all reported offences, however trivial, must be recorded, and this accounts for the marked rise in their number.

Mark system.

There was an increase in the number of convicts who earned remission under the mark system, as compared with the previous year; and of those released during the year only 26 had failed to obtain remission, one man having earned in the course of a long imprisonment as much as 1,489 days. The maximum gratuity earned by a prisoner discharged during the year was Rs. 18 (as compared with Rs. 28 in 1892); but it is now recognised that what is needed in this respect is not that prisoners may earn a money reward rather than marks counting towards remission, so much as a system securing to indigent prisoners, on their release, a sufficient subsistence allowance to enable them to reach their homes.

Cost of maintenance.

The gross expenditure on jails fell from Rx. 584,321 in 1892 to Rx. 570,201. The largest decrease occurs under the head of "Rations," the cost of rations per head having fallen from Rs. 27·255 in 1892 to Rs. 25·71. The cost of establishments, which had been Rx. 196,168 in 1892 rose to Rx. 199,990. Steps were being gradually taken to substitute warders for police guards in those provinces where the change had not already taken effect. Hospital charges decreased, principally in the Central Provinces, where they amounted to 7 pies under a rupee per head of the average daily strength.

The total cash earnings of prisoners were more than in the previous year by Rx. 27,461.

The net expenditure on jails was Rx. 417,598, as compared with Rx. 459,178 in 1892, and the net cost per head averaged Rs. 44. 3. 0., being lowest in the Central Provinces (Rs. 19. 4. 5.), and highest in Madras (Rs. 58. 4. 10.).

Mortality and health.

The general health of the jail population, which had declined in 1892, improved considerably in 1893. The admissions into hospital fell from 1,116·87 per mille in 1892 to 907·42; the daily average number of sick from 37·94 to 34·94; and deaths, from 35·94 to 24·30. Bowel complaints and fever were the principal causes of death, but cholera was much less fatal than in the previous year, causing only 92 deaths against 510. In Hyderabad, the increase in the death-rate is ascribed to an outbreak of scurvy and influenza. In the remaining Provinces the death-rate declined. The death-rate in jails compared unfavourably with that of the free population in all Provinces, except Bombay, the

the North-West Provinces and Oudh, the Punjab, the Central Provinces, and Berar, but it should be remembered that, whereas the jail returns are absolutely accurate, the registration of vital statistics among the free population is still very defective. JAILS.

CIVIL JUSTICE.

The general system of administration of Civil Justice in both Regulation and Non-Regulation Provinces is fully described in previous reports, and no important alterations were made in the year under review. CIVIL JUSTICE.

For the last 20 years there has been in Bengal a steady increase of litigation of all kinds, and this has been specially marked in the year under review. The rise in the number of rent-suits (made cognizable by Civil Courts in 1870) was fully maintained in 1893, and accounts for a large part of the total increase. The business of the Civil Courts has also been considerably enhanced by the growing number of "miscellaneous" cases, which often occupy as much time as regular suits. Appellate business increased in the High Court, but diminished in the subordinate Courts, where the percentage of appeals to appealable decisions fell from 26 in 1892 to 23. The number of suits instituted in the Presidency Small Cause Court was less than in any of the six preceding years, except 1888. Bengal.

There was no marked variation in the number of suits instituted in these Provinces during the year under review from the figures for 1892–93. The increase in the pending file which has been observed during the previous five years still continued, and the latest increase is partly accounted for by the fact that the contested cases decided were slightly more numerous than in 1892–93. There was also a considerable extension of the use of Small Cause Court powers by the regular Courts during the year. The number of appeals increased, and the result of appellate decisions was less favourable to subordinate courts than in 1892–93. North-Western Provinces and Oudh.

In the Punjab the number of suits instituted in 1893 was the largest on record since the institution of separate Revenue Courts in 1884; this is attributed in part to the good harvests and healthiness of the year. The number of suits referred to arbitration increased, whereas during the three previous years it had steadily declined—a fact which had been variously ascribed to the unpopularity of the provisions of the law, to the increased bitterness of feeling engendered by litigation, and to the absence of anything like official pressure or even encouragement. The distribution of civil business was on the whole satisfactory. Munsifs tried considerably more small causes, and fewer land suits and unclassed suits. There was also a substantial increase in the amount of work done by Honorary Civil Judges. Punjab.

In Lower Burma there was a decrease of civil litigation, yet the number of cases pending was considerably greater than at the end of 1892, in spite of the great increase in litigation during that year. The decrease also extended to appeals, which were, however, disposed of more promptly. The proportion (59 per cent.) of confirmations on appeal to the Judicial Commissioner shows an improvement on the previous year. Burma.

In Upper Burma the number of suits instituted decreased slightly on the whole, though there was a substantial increase in some of the less civilised districts. The percentage of confirmations by the Judicial Commissioner on appeal was only 49.

In the Central Provinces the year 1891 had been an exceptional one in respect of the small number of suits instituted, but in 1892 the number exceeded the average of the previous seven years, and in the year under review there was a further rise. The increase occurred in suits of nearly all values, except in those under Rs. 10, but is particularly noticeable in those between Rs. 50 and Rs. 500. The number of appeals was very little more than in 1892, and a larger share of this class of business devolved on the separate judicial Central Provinces.

CIVIL JUSTICE.

officers who were established in that year. Fewer appeals were disposed of than in 1892.

Assam

The number of civil suits instituted in Assam in 1893 was slightly greater than in 1892, but both years show a considerable decline as compared with the eight preceding years. As in Bengal, however, the number of rent-suits increased, and there were also more suits involving disputes as to title. The value of suits decreased, the average being Rs. 88·1 for money-suits, Rs. 32·4 for rent-suits, and Rs. 188·02 for title and other suits, as compared with Rs. 84·4, 25·4 and 681·6, respectively, in 1892. The decrease in the value of the suits occurred in Sylhet; but on the other hand the returns from Sylhet account for the increased number of suits involving title, mortgage suits being now included under this head. As in 1892, the result of appeals was very favourable to Courts of First Instance in Sylhet, where the percentage of decisions upheld was 77·8; in the Assam Valley Districts it was 65·7, and in Cachar 61·7.

Hyderabad.

The volume of work which came before the Civil Courts in the Hyderabad Assigned Districts in 1893 was the greatest yet recorded, but fewer cases were disposed of during the year, and the pending file was considerably greater than at the end of 1892. There was nothing special in the character of the litigation, which related chiefly to small loans for agricultural purposes. Over 75 per cent. of the cases which came to a hearing were disposed of without a contest. The result of appeals was, on the whole, creditable to the lower Courts, about 73 per cent. of their decisions being confirmed.

Madras

The amount of civil original litigation reached the highest figure it has ever attained in Madras, and the increase extended to every class of Court up-country except the Cantonment Courts of Small Causes and the Agency and District Courts; the increase in the Revenue Courts being especially large. No satisfactory reasons are given for this increase. On the other hand there was a falling off in all classes of appeals. There was also a remarkable decrease in the Presidency Court of Small Causes, the number of suits recorded in 1893 being the lowest in the last decade. In the High Court there was a diminution in the amount of original work owing to the establishment of the City Civil Court, but the number of appeals increased. In about 70 per cent. of the appeals to the High Court during the year the decisions of the lower Courts were affirmed.

Bombay.

In the Bombay Presidency proper there was a decrease in the number of suits instituted in 1893, as compared with the previous year, and it was most marked in the Courts of Subordinate Judges, while the Revenue Courts show a considerable increase. In Khandesh, where the decrease was most remarkable, it is attributed to the apprehension felt by the money-lenders in 1892, that the Dekkhan Agriculturists Relief Act would be extended to that district—an apprehension which had been removed in 1893. In Sind there was an increase in litigation. The number of appeals was slightly less than in 1892.

IV.

REGISTRATION.

In a previous Statement was given a short account of the Registration Law. It will suffice to say here that the law makes compulsory the registration of all non-testamentary documents affecting immovable property of the value of Rx. 10 or upwards, while it permits the optional registration of other documents. Officers are established in every district for the registration of documents, and for keeping copies of such documents. *Ad valorem* fees are charged for registration, and a small fixed fee for searching the records. At the end of 1893–94 there were in British India 1,944 registration offices; the total number of documents registered during the year was 2,808,381, or nearly 3 per cent. more than in 1892-93. The total registration fee receipts of the year 1893-94 were Rx. 415,000, as compared with Rx. 430,000 in the preceding year; and the cost of the registration offices was Rx. 223,000, leaving a surplus of Rx. 192,000, against Rx. 225,000 in the year 1892-93. It is claimed for the Indian registration system that it operates to prevent fraud, as well as to secure and simplify titles. REGISTRATION. General.

The number of registration offices in Bengal increased from 346 to 365. The total number of documents registered was 1,169,453, against 1,102,321 in 1892-93. The increase occurred under documents of which registration is optional, as well under those for which it is compulsory; nearly 86 per cent. of all the documents brought for registration related to immovable property. The number of registered transfers of holdings by ryots (tenants), paying at fixed rates or enjoying occupancy right, rose from 88,337 in 1887-88 and 168,999 in 1892-93 to 186,058 in 1893-94; the transfer was made in the majority of cases to other ryots. The number of ceremonies registered under the Muhammadan Marriage Act rose from 12,175 to 14,743, the highest number since the law was passed. The Act is in force in 20 districts, as compared with 19 districts in the years 1892-93; and 19 new offices for registering such marriages were opened in the year. The total fee receipts from all registrations were Rx. 138,800, or 3 per cent. less than in the previous year; the expenditure increased from Rx. 72,600 to Rx. 78,600; and the surplus decreased by Rx. 10,600 to Rx. 60,200. The decrease in fee receipts was due to the reduction of the minimum fee from 12 annas to 8 annas. It had been reported that the higher fee debarred the poorer classes from taking advantage of registration facilities. Bengal

The number of registration offices in the North-West Provinces and Oudh fell from 339 to 337, and the total number of documents registered rose from 207,162 to 208,482. The increase occurred entirely under documents for which registration was optional. There was an increase of 2 per cent. in the registration receipts as compared with 1892–93. The surplus of receipts over expenditure was Rx. 19,500, compared with Rx. 19,000 in the previous year. The number of mortgages registered showed a decrease of $3\frac{3}{4}$ per cent. as compared with the preceding year; the number of leases increased 7 per cent.; sales of land increased $\frac{1}{2}$ per cent., and the total number of wills deposited in the year rose from 22 to 28. The number of documents relating to movable property, for which registration was optional, rose from 46,538 in the previous year to 48,500 in the year 1893–94. The total value of the property regarding which documents were registered during the year was Rx. 8,687,000, as compared with Rx. 9,089,000 in the previous year; the reduction in value occurred chiefly under the head of mortgages. Prosecutions for breach of the Registration Law fell from eight to four. North-West Provinces and Oudh.

The number of registration offices in the Punjab was 273, or 15 more than at the end of the previous year. The total number of documents registered was 117,648, or 8 per cent. below the previous year's total, while the fee receipts decreased by 8 per cent., and the surplus of the Department by 14 per cent. The decrease of business was attributed to the good harvests of the year, whereby agriculturists were enabled to keep out of debt. The number of optional registrations were 30 per cent. of the total, as against 25 per cent. in 1892–93. Punjab.

REGISTRATION. The chief decrease in the year's registrations was under the head of mortgages and sales of land, which fell in the year from 82,224 to 62,991. The total value of property to which registered documents related was Rx. 4,654,000, or Rx. 328,000 less than in the preceding year. The registration receipts fell to Rx. 30,039, and the surplus to Rx. 18,287.

Burma. The number of registration offices in Lower Burma was 120, as in the previous year; and the number of registrations decreased from 17,369 in the previous year to 16,161. The decrease was common to all kinds of document dealings, and speculations in land were said to have been fewer than usual. The aggregate value of all property registered was Rx. 1,788,000, or 17 per cent. less than in 1892–93. The fee receipts fell to Rx. 5,137, as compared with Rx. 5,475 in 1892–93. The surplus of receipts over expenditure was Rx. 2,893, against Rx. 2,215 in the previous year.

Twenty registration offices were open in Upper Burma as in the previous year; 2,515 documents were registered, or 123 more than in the previous year. The total income from fees was Rx. 495, and the expenditure was Rx. 291.

Central Provinces. The number of registration offices was 88, against 86 in the previous year, and the number of documents registered during the year in the Central Provinces was 32,941, or 6 per cent. more than in the preceding year. The increase was exclusively under compulsory registrations. The value of the property concerned was Rx. 1,283,000, an increase of 8 per cent. over the previous year. Of the documents registered 77 per cent. were of classes for which registration is compulsory. The cost of the Registration Department was 35 per cent. of the receipts, and the net revenue was Rx. 7,896, as compared with Rx. 6,371 in the preceding year.

Assam. In Assam there were 25 registration offices, of which one was opened during the year; 34,147 documents were registered, or 3,154 more than the total of the preceding year; the proportionate increase was larger under optional than under compulsory registrations, a slightly smaller proportion than in 1891. The value of the property registered rose to Rx. 568,000 from Rx. 557,000 in the previous year. The fee receipts were Rx. 4,715, and the expenditure was Rx. 2,598, leaving a surplus of Rx. 2,117, which is larger than the surplus in any preceding year.

The marriages registered under the Muhammadan Marriage Act were 222, as compared with 317 in the preceding year; the number of these marriage registrations in Assam has been decreasing rapidly during the past three years.

Berar. The number of registration offices in Berar was 63, as at the end of the previous year; the number of documents registered was 35,183, or 13 per cent. more than in the previous year. The value of the property registered was Rx. 1,068,000, or 16 per cent. larger than in the previous year; the fee receipts increased 16 per cent., the expenditure rose 3 per cent., and the surplus increased from Rx. 2,800 to Rx. 3,900. The increase of registrations and of receipts was general over all kinds of documents, except money bonds.

Madras. Ten new registration offices were opened in Madras, bringing up the total to 408. The number of documents registered was 859,036, showing a decrease of 1½ per cent. compared with the previous year. The decrease was mostly in documents of which registration was optional; the decrease in registrations was generally attributed to the favourable season which followed after successive bad harvests. On the Malabar coast, where prices for such staples as pepper and cocoanuts had fallen greatly, the number of registrations increased. The total value of the property concerned in all the registrations was 17¾ millions, against 15¾ million Rx. in the preceding year. The registration receipts were Rx. 119,334; the expenditure was Rx. 87,664; and the surplus was Rx. 31,698, or 34 per cent. less than in the previous year. The chief item of decrease in the receipts was a fall of Rx. 10,121 in the fees for searches. The number of documents of which registrations was refused rose from 2,090 to 2,147.

Bombay. The number of registry offices in Bombay was 245, or the same as in the previous year. The number of registrations was 193,303, or 9 per cent. larger than in 1892-93. The increase took place mainly under compulsory registrations. The value of the property affected was Rx. 8,914,000. The fee receipts were Rx. 54,247. The registration surplus of the year, under all heads, was Rx. 26,941, as compared with Rx. 25,461 in the year 1892-93.

Under the special law for the protection of Dekkhan agriculturists in the four districts of Poona, Sattara, Ahmadnagar and Sholapur, there were

139,512 registrations, or 1½ per cent. above the total of the previous year. Of the registered sales, leases, and mortgages of land, 46 per cent., or almost the same proportion as in the two previous years, were between agriculturists on both sides, and 54 per cent. between agriculturists and money-lenders. The aggregate value of property concerned in these special registrations was Rx. 730,000, or 4 per cent. more than in the previous year. There was an increase of 3 per cent. in the fee receipts; and the net deficit on these registration proceedings was Rx. 1,085, as compared with Rx. 791 in the preceding year, and over Rx. 1,600 in earlier years. REGISTRATION.

JOINT STOCK COMPANIES.

During the year 1893–94, in all provinces of India, the number of new joint stock companies registered was 165, with a nominal capital of Rx. 1,663,000, as compared with 71 new companies registered in the previous year. At the end of the year there were in operation 1,055 companies, with a nominal capital of Rx. 36,251,000 and a paid-up capital of Rx. 27,510,000. The increase was due mainly to the formation of 64 Native Provident and Insurance Companies in Central Bengal, most of them with very small capital. Fifty-six companies ceased to work during the year. The total paid-up capital of all surviving companies had increased by about Rx. 3,000,000 in the three years 1891-94. The companies work chiefly in the provinces of Bengal and Bombay; in no other province did the aggregate paid-up capital of registered companies reach two millions. The distribution of paid-up capital among registered companies for different classes of industry was somewhat as follows:— JOINT STOCK COMPANIES.

	Rx. of Paid-up Capital.		Rx. of Paid-up Capital.
Banking and insurance	3,812,000	Brewery companies	169,000
Trading and shipping	3,840,000	Mills and presses	12,783,000
Mining and quarrying	1,278,000	Tea and planting	3,847,000

The companies with the largest aggregate subscribed capital, Rx. 12,783,000, were for weaving and spinning or for pressing cotton, jute, wool, and silk, and nearly two-thirds of the capital of such undertakings belonged to the Bombay Presidency. The capital invested in mills increased by 4 per cent. during the year, and the capital in mining increased by 1 per cent.; capital invested in tea showed an increase of 1 per cent.; and on the whole there was no great expansion of joint-stock enterprise during the year.

In Bengal 90 new companies were registered, with a nominal capital of Rx. 591,000. Fifteen companies ceased to work. At the end of the year 1893–94 there were 394 registered joint-stock companies at work. Bengal.

In Bombay 30 new companies were registered, with a nominal capital of Rx. 573,000. Thirteen companies went into liquidation. At the end of the year 256 joint-stock companies were in existence, with a paid-up capital of Rx. 10,790,000. Of these, 156 companies, with a paid-up capital of Rx. 8,392,000, were working cotton mills and presses. Bombay.

PATENTS AND DESIGNS.

The total number of applications filed in 1893 for the registration of inventions under the Patents' Law was 375, against 336 in 1892. Of these, 261 were granted, 36 were refused, and 78 were undecided at the end of the year. Of the applications, as many as 156 had to be referred for the opinion of experts. The number of specifications filed during the year was 253, or 52 less than in the preceding year. There were 37 applications for the registration of designs, of which 26 were granted and 11 refused during the year. In 80 cases the exclusive privilege granted by law was continued for a further term, which reached in 69 cases to beyond four years, and in one case to beyond eight years. The fee receipts of the Indian Patent Office during the year were, after refunds, Rx. 1,691. Patents.

V.

FINANCE.

FINANCE.

[*The denomination* Rx. *means tens of rupees.*]

THE gross revenue and expenditure of British India in 1893-94 may be thus compared with the figures for 1892-93:—

	1892-93.	1893-94.	Increase.	Decrease.
	Rx.	Rx.	Rx.	Rx.
Revenue	90,172,438	90,565,214	392,776	—
Expenditure	91,005,850	92,112,212	1,106,362	—
Deficit	833,412	1,546,998	Result worse by Rx. 713,586	

In the gross revenue are included very large receipts, amounting altogether to about one-third of the whole, which (being derived from the working of the railways and canals, the operations of the Postal and Telegraph Departments, the interest received on loans to municipalities, landholders, &c., and on the investments of the Currency Department, the seignorage on coinage, the contributions by officers towards their pensions, the sale of stores, and the receipts of the various administrative departments) are rather of the nature of a set-off against the corresponding charges than revenue proper; and, on the other hand, there are included in the expenditure, firstly, one set of charges which must be regarded as a direct set-off against corresponding items of income, viz., the cost of collection of revenue; and, secondly, two very variable charges, viz., (1) that which is incurred for the production of opium, and is subject to variations caused by the state of the season and of trade, and (2) that which is incurred for the establishment and maintenance of public works, and necessarily increases as more works are brought into operation. The financial position of the Government can, therefore, be much better appreciated by looking at the net revenue and expenditure, a statement of which is regularly appended to the Financial Statement annually laid before Parliament.* The following is the comparison of the net revenue, *i. e.*, of the gross revenue after the deduction of the cost of collection and other direct demands, with the net expenditure, *i. e.*, the expenditure after the deduction of the various departmental receipts:—

Net Revenue.

NET REVENUE.

REVENUE.	1892-93.				1893-94.				NET REVENUE.	
	Gross Revenue.	Deductions. Refunds and Drawbacks.	Deductions. Charges in respect of Collection.	Net Revenue.	Gross Revenue.	Deductions. Refunds and Drawbacks.	Deductions. Charges in respect of Collection.	Net Revenue.	Increase.	Decrease.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	24,905,328	55,000	3,936,345	20,913,983	25,589,609	51,614	4,021,613	21,516,382	602,399	—
Opium	7,993,180	135	1,602,496	6,390,549	6,627,571	3	1,876,607	4,750,961	—	1,639,588
Salt	8,656,104	29,986	458,707	8,167,411	8,228,876	32,266	474,405	7,722,205	—	445,206
Stamps	4,448,540	53,744	141,264	4,253,532	4,509,351	52,446	156,562	4,300,343	46,811	—
Excise	5,242,443	32,240	193,013	5,017,190	5,388,573	35,306	193,375	5,159,802	142,612	—
Provincial Rates	3,706,498	7,849	55,659	3,642,990	3,514,571	11,467	53,809	3,449,295	—	193,695
Customs	1,617,633	58,836	140,634	1,418,163	1,682,373	45,313	143,736	1,493,324	75,161	—
Assessed Taxes	1,686,141	15,615	30,171	1,640,355	1,739,171	21,544	31,060	1,686,567	46,212	—
Forest	1,591,332	2,485	865,225	723,622	1,723,022	4,338	906,407	812,277	88,655	—
Registration	430,064	1,398	213,116	215,550	416,146	1,133	223,723	191,290	—	24,260
Tributes from Native States.	790,112	—	—	790,112	774,337	500	—	773,837	—	16,275
	61,067,375	257,288	7,636,630	53,173,457	60,193,600	256,020	8,081,297	51,856,283	—	1,317,174
Deduct.— Assignments and Compensations.	—	—	—	1,567,776	1	—	—	1,528,260	—	39,516
TOTAL NET REVENUE	—	—	—	51,605,681	—	—	—	50,328,023	—	1,277,658

* *See* page 66 of Financial Statement for 1894-95 (Commons' Paper, 92 of 1894), and the corresponding page of the Financial Statement for 1895-96.

NET EXPENDITURE.

EXPENDITURE.	1892-93.			1893-94.			NET EXPENDITURE.	
	Gross Expenditure.	Receipts.	Net Expenditure.	Gross Expenditure.	Receipts.	Net Expenditure.	Increase.	Decrease.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Interest	4,374,263	869,727	3,504,536	4,446,369	875,487	3,570,882	66,346	—
Post Office, Telegraph, and Mint	2,505,625	2,736,953	*—231,328*	2,550,670	2,747,714	*—197,044*	34,284	—
Civil Departments	14,259,912	1,607,876	12,652,036	14,637,840	1,631,302	13,006,538	354,502	—
Miscellaneous Civil Charges	5,537,840	876,994	4,660,846	5,646,877	999,149	4,647,728	—	13,118
Famine Relief and Insurance	1,116,103	—	1,116,103	1,117,801	—	1,117,801	1,698	—
Construction of Railways (charged against Revenue, in addition to that under Famine Insurance).	339,487	—	339,487	73,903	—	73,903	—	265,584
Railway Revenue Account	20 924,155	19,077,103	1,847,052	21,832,476	20,296,973	1,535,503	—	311,549
Irrigation	2,940,479	2,418,902	521,577	2,862,567	2,296,409	566,158	44,581	—
Buildings and Roads	5,846,480	653,188	5,193,292	5,810,852	674,354	5,136,498	—	56,794
Army	23,419,111	864,320	22,554,791	23,253,597	850,226	22,403,371	—	151,420
Special Defence Works	458,060	—	458,060	324,974	—	324,974	—	133,086
	81,721,515	29,105,063	52,616,452	82,557,926	30,371,614	52,186,312	—	430,140
Provincial and Local Surpluses	—	—	—	+	—	—	—	—
„ „ „ Deficits	—	—	177,359	—	—	311,291	—	133,932
TOTAL NET EXPENDITURE	—	—	52,439,093	—	—	51,875,021	—	564,072

Thus, there was a decrease of the net revenue by Rx. 1,277,658, and of the net expenditure by Rx. 564,072, making the result worse by Rx. 713,586, and producing a deficit of Rx. 1,546,998 in 1893-94, as compared with one of Rx. 833,412 in 1892-93. This is entirely attributable to the charges connected with exchange, and to the fall in the gold value of the rupee from 14·985*d.* in the former to 14·547*d.* in the latter year, the effect being to increase the net charge for exchange by Rx. 1,000,767, including Rx. 383,200 for the exchange compensation allowance granted to officers, with effect from the 1st of April 1893. The allowance takes the form of a percentage on the salary, sufficient to enable an officer to remit to England one-half of his salary (but not more than 1,000*l.*) at the rate of 18*d.* per rupee. Of the total increase of Rx. 1,000,767 in exchange, Rx. 289,620 occurred in the Railway Revenue Account, Rx. 240,000 in the European soldiers' pay, Rx. 383,200 in the compensation allowance granted to officers, Rx. 172,289 in Interest, and Rx. 67,262 in Civil Superannuation, while there was a reduction of Rx. 98,682 on the army effective charges in England, and of Rx. 52,922 under other heads. Apart from exchange, there was a net improvement of Rx. 287,181, the net revenue being less by Rx. 1,270,894, while the net expenditure was reduced by Rx. 1,558,075. The reduction of the net revenue was primarily due to the head of opium, from which the receipts were diminished by Rx. 1,365,609, while the charges were higher by Rx. 273,567; the number of chests sold at Calcutta was reduced by 5,499, the average price realised by Rs. 138 per chest, and the amount paying duty on export from Malwa by 1,170 chests. The net revenue from salt was less by Rx. 444,867, and from provincial rates by Rx. 193,695. On the other hand, land revenue was better by Rx. 602,097, Excise by Rx. 142,644, Forest by Rx. 88,413, Customs by Rx. 75,240, Stamps by Rx. 53,257, and other heads by Rx. 45,193. The reduction in the net expenditure was the outcome of various changes; the Railway Revenue Account was improved by Rx. 626,269, owing

FINANCE.

owing to the much larger receipts; the army charges were diminished by Rx. 580,274, chiefly in England, where the payments in 1892-93 had been enhanced by accidental circumstances; in the construction of provincial railways Rx. 265,584 less was spent; the outlay on special defence works was reduced by Rx. 122,502; the charge for interest was reduced by Rx. 105,943; the expenditure on civil departments was increased by Rx. 291,126, but under other heads reduced by Rx. 14,697; while the portion defrayed from the provincial balances was larger by Rx. 133,932.

In the tables in the Appendix, the net revenue and expenditure in India of the several Provinces under the chief heads are shown for the years 1892-93 and 1893-94, to which is added a table of the net payments in England, with the loss by exchange thereon, the figures in all the tables combined resulting in the totals of net revenue and expenditure given above. The revenue and expenditure of Berar, which form no part of the general finances of the Government of India, are not given in this chapter, but are referred to under Hyderabad, in the chapter on Native States. The surplus revenue of the various Provinces, as shown in the Summary on page 186, were applied to meet the general charges in India and in England in approximately the following proportions:—In 1892-93: Bengal 41, North-West Provinces 20, Bombay 15, the Punjab 9, Madras 7, Burma 4, Central Provinces 3, and Assam 1. In 1893-94: Bengal 37, North-West Provinces 21, the Punjab 10, Madras 9, and the other Provinces as in the previous year.

CAPITAL OUTLAY ON PUBLIC WORKS.

Capital Outlay on Public Works.

The total capital outlay on railways and irrigation works, the expenditure in England being converted into Indian currency at the average rate obtained for the Secretary of State's bills during the year, was as follows:

	1892-93.	1893-94.	Increase.	Decrease.
Amount supplied by borrowing or from the Cash Balances, without being charged against the Revenue of the Year:	Rx.	Rx.	Rx.	Rx.
State Railways	3,455,199	2,939,568	–	515,631
Irrigation Works	531,091	681,684	150,593	—
TOTAL	3,986,290	3,621,252	–	365,038
Amount defrayed from Revenue:				
Provincial Railways, &c.	† 339,487	73,903	–	185,903
Protective Railways	984,469	1,060,954		
Protective Irrigation Works	60,793	56,351		
Other Irrigation Works*	10,510	18,148		
TOTAL Direct Outlay by the State	5,381,549	4,830,608	–	550,941
In addition to this, the outlay by companies guaranteed or subsidised by the Government was	1,309,000	1,218,895	–	90,105
So that the TOTAL Outlay was	6,690,549	6,049,503	–	641,046

* Excluding capital outlay on the minor works, against which interest is not charged in the Accounts.
† Including Rx. 201,225 contributed by Madras for the East Coast Railway.

DEBT.

Debt.

The following alterations were made in the amount of the debt in 1892-93 and 1893-94 respectively:—

	1892-93.	1893-94.	Increase.	Decrease.
In India - - - - - - - Rx.	245,235	2,608,526	2,363,291	—
In England - - - - - - £.	—720,376	*1,430,025	*2,150,401	—

* In addition to £. 6,000,000 of Temporary Debt.

In 1892-93, for the third time in succession, the Government of India was able to dispense with a public loan; but Rx. 250,000 was borrowed, at 4 per cent., from the Rampur State, towards the construction of a line of railway from Moradabad to Bareilly through Rampur; and, debt being discharged to the amount of Rx. 4,765, the net increase was Rx. 245,235. In England a loan of 1,300,000*l.* India 3 per cent. Stock, which was subscribed on the 29th of April 1892, at an average price of 96*l.* 18*s.* 4*d.* per cent., was issued for the discharge of 920,300*l.* railway debentures bearing 3½ per cent. interest, while 98,736*l.* of India 3½ per cent. stock and 1,340*l.* of India stock at higher rates, was also paid off, in addition to 1,000,000*l.* of Oudh and Rohilkund Railway debentures, which fell due on the 1st of April 1892, and for the discharge of which money had been provided in the previous year; there was, therefore, a net reduction of debt to the amount of 720,376*l.*

In 1893-94 the Government raised in India, for the discharge of the outstanding portion of their 4½ per cent. Rupee Debt, and for the prosecution of public works, a loan of Rx. 3,499,100, bearing interest at 3½ per cent., which was subscribed at 96·21, and they also borrowed a further sum of Rx. 220,000 from the Rampur State for the construction of the railway through its territory; as debt to the amount of Rx. 1,110,574 was discharged, the net increase in India was Rx. 2,608,526. In England 1,300,000*l.* India 3 per cent. Stock was issued, at 98*l.* 17*s.* 3*d.* per cent., for the discharge of railway 3½ per cent. debentures amounting to 1,249,200*l.* and for advances of 32,219*l.* to railway companies; and 96,000*l.* of the same stock was created in order to fulfil the engagements involved in the Maharajah Duleep Singh's Estate Act of 1882. Owing to the failure to sell bills on India, it became necessary to issue India debentures for five years, bearing 3¼ per cent. interest, for 1,386,000*l.* A new form of security was also created, termed India bills, payable in sterling at six months' date, similar in description to Treasury bills, by means of which 6,000,000*l.* was raised at intervals, the average rates of interest being 2*l.* 16*s.* 7*d.* on 2,000,000*l.* in November 1893, 2*l.* 12*s.* 3*d.* on 1,500,000*l.* in December, and 2*l.* 7*s.* 7*d.* on 2,500,000*l.* in February 1894. Thus, after deducting 2,015*l.* of old debt discharged, and 100,760*l.* cancelled by the operation of the Sinking Funds, the net increase of permanent debt in England in 1893-94 was 1,430,025*l.*, while 6,000,000*l.* of temporary debt was incurred.

SAVINGS BANKS AND OTHER OBLIGATIONS.

Savings Banks and other Obligations.

The following table shows the amount received and paid on account of savings banks, loans to municipalities, and other obligations in India:—

	1892-93.	1893-94.
	Rx.	Rx.
Savings Banks, &c. (net deposits) - - - - - - -	922,339	513,926
Loans to Port Trusts, Municipalities, Native States, &c. (net receipts *or disbursements*) - - - - - - - - -	—356,268	1,021,591
Provincial Advances and Loans (*net disbursements*) - - -	—493,340	— 195,799
Other Obligations (net receipts) - - - - - - - -	310,175	374,202
TOTAL - - -	382,906	1,713,920

FINANCE

CASH BALANCES.

Cash Balances.

The following statement shows the amount of the cash balances, and the extent to which they were increased or reduced by the transactions of the year :—

	On 1st April.			Increase or Decrease.	
	1892.	1893.	1894.	In 1892-93.	In 1893-94.
In India - - - Rx.	17,287,005	15,271,756	25,565,588	—2,015,249	10,293,832
In England - - £.	4,122,626	2,268,388	1,300,564	—1,854,238	—967,824

COINAGE AND PAPER CURRENCY.

Coinage and Paper Currency.

The value of the coinage at the Mints of Calcutta and Bombay was :—

	Calcutta.		Bombay.		Total.	
	1892-93.	1893-94.	1892-93.	1893-94.	1892-93.	1893-94.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Gold - - -	—	—	—	—	—	—
Silver - - -	2,998,018	821,015	9,613,510	4,081,484	12,611,528	4,902,499
Copper - - -	131,119	129,508	—	—	131,119	129,508
Total - - -	3,129,137	950,523	9,613,510	4,081,484	12,742,647	5,032,007

The receipts and expenditure of the Indian Mints were as follows :—

	1892-93.	1893-94.
	Rx.	Rx.
Receipts - - - - - - -	310,335	227,355
Expenditure - - - - - -	112,007	91,080
Net Receipts - - -	198,328	136,275

On the 31st of March 1894 the amount of notes in circulation was Rx. 30,411,631, being Rx. 4,014,490 more than on the corresponding date in 1893. The reserve was, in silver coin, Rx. 22,411,631, and in Government securities Rx. 8,000,000.

OPIUM.

The opium revenue is raised partly by a monopoly of opium in Bengal, and partly by the levy of a duty on all opium exported from Native States. Though the poppy can be grown in most parts of India, its cultivation in British territory is permitted only in parts of Bengal and of the North-West Provinces and Oudh. A few thousand acres of opium are grown in the Punjab for local consumption. The cultivator of opium in the monopoly districts receives advances to enable him to prepare the land for the crop, and he is required to deliver the whole of the produce at a fixed price to opium agents, by whom it is despatched to the Government factories at Patna and Ghazipur to be prepared for the China market. The chests of manufactured opium are sold by auction at monthly sales which take place in Calcutta; and in order to prevent speculation and to steady prices, the quantity to be offered at each sale during each year is notified in the previous year. A sufficient reserve has in recent years been retained to supply the deficiencies of bad seasons; but owing to a succession of five bad opium crops, the reserve is now exhausted. A small quantity of opium is used by the Indian Excise Departments. In 1861 the average price of opium sold by auction for the China market was as high as Rx. 185 per chest of 133 lbs. weight, but since that year it has fallen; in February 1895 the price rose to Rx. 154, the highest average at any monthly sale for the previous 23 years. In the calendar year 1894, the average price was Rx. 125; it had been Rx. 115 in 1893, 116 in 1892, and 105½ in 1890. OPIUM. General.

Opium is grown in the Native States of Rajputana and Central India. Some of these States have agreed to assimilate their internal opium arrangements to the British excise system, and to prevent contraband dealings. They levy heavy dues on opium exported from their territories for the China market, and such opium pays to the Indian Treasury a duty which amounted in 1893–94 to Rx. 60 per chest on exportation.

During the year 1893–94 a Royal Commission was appointed to investigate and report upon the Indian opium question. They took some little evidence in London; they visited India, and examined 689 witnesses in many parts of the country; they obtained written evidence from China and the Straits Settlements; and they hoped to submit their Report during the month of April 1895.

The yield of the opium revenue during recent years has been:—

—	1889–90.	1890–91.	1892–93.	1893–94.
Opium Receipts:	Rx.	Rx.	Rx.	Rx.
Auction sales of monopoly opium - -	6,477,079	5,914,320	6,096,227	4,808,376
Duty on Bombay or Malwa opium - -	1,890,854	1,754,088	1,675,653	1,604,595
Cost of opium issued to the Excise and other Departments.	215,123	210,774	221,300	214,600
Total - - - Rx.	8,583,056	7,879,182	7,993,180	6,627,571
Opium expenditure, chiefly in Bengal - -	1,605,107	2,180,797	1,602,496	1,876,607
Net Opium Revenue - - - Rx.	6,977,949	5,698,385	6,390,684	4,750,964[a]

The number of chests of Bengal opium sold in the two earlier years was 57,000, but it fell to 48,852 chests in the year 1892–93; and to 43,353 chests in

[a] These receipts are outside the provincial opium duties of Rx. 994,199, shown in the Excise section of this Statement as the receipts of 1893–94.

OPIUM.

in 1893–94. The number of chests of Bombay opium paying duty was 28,372 in the year 1889–90, 28,413 in 1890–91, 27,845 in 1892–93; and 26,675 in the year 1893–94.

The decrease in the net opium revenue for 1893–94 was a result, partly of the smaller supply of opium and partly of the reduced price obtained at the monthly sales. The net opium revenue during recent years has been as follows:—

Net Opium Revenue in	Rx.	Net Opium Revenue in	Rx.
1872–73	6,870,423	1888–89	5,964,404
1875–76	6,250,860	1890–91	5,698,385
1878–79	7,700,671	1891–92	6,150,627
880–81	8,451,276	1892–93	6,390,684
1883–84	7,701,518	1893–94	4,750,964

Bengal.

The area actually cultivated with the poppy in the Ganges Valley, which had been 594,921 acres in 1886, was 474,391 acres in the year 1893, and of this area 20,150 acres failed to yield any crop. The yield of opium had been very short in 1892, and was still below the average in 1893. The total quantity manufactured was 40,505 chests in 1893, and 31,841 chests in 1892, as compared with 74,325 chests in 1888. In 1893 the yield of opium averaged 14¼ lbs. per acre, or 2 lbs. better than in the preceding season, against a normal out-turn of 18 lbs. per acre in a year of good harvests. But the consistence or quality of the raw produce was considerably inferior to that of the preceding year. The opium reserve in Calcutta, which ought to stand at 30,000 chests at the end of every year, had practically disappeared by December 1894, notwithstanding that the yearly sales have been reduced by 12,000 chests.

The number of prosecutions for breaches of the Opium Laws in the years 1893-94 was again 618, as in the preceding year; in these cases 709 persons were convicted, and 103 were acquitted, as compared with 836 and 68 respectively in the previous year.

SALT.

SALT.
General.

The salt revenue is raised by a duty on all salt imported into, or manufactured in, India. The rate of duty has in past times ranged from ⅛th of a rupee (in Burma) to 3¼ rupees (in Bengal) per maund of 82 lbs.; during the year 1893–94 the rate was 2½ rupees over the whole of India, except Burma, where it was at one rupee per maund. The Indian sources of salt supply are the coast, where salt is manufactured for the consumption of all southern and western India and part of Burma and Central India; the salt lakes and other sources of Rajputana, which supply the North-Western provinces, Oudh, and a part of Central India; the salt mines of the Punjab, which supply that province and a varying area southward; importations from beyond the sea, which supply Bengal and the greater part of Burma. The duty is levied on salt at the place of manufacture, or at the port of importation, before it passes into consumption. The regions supplied from each source contract or extend, according to varying circumstances of the season, or of markets, or of means of carriage; for instance, when, as in the year 1893–94, an unusually wet season prevented salt production by solar evaporation at the Sambhur Lake in Rajputana, special supplies from the Bombay coast factories are carried inland, and partly make up for the deficiency; when a railway was opened to the Punjab mines, salt made its way thence further south and east.

The SALT REVENUES and CHARGES in the year 1892-93 were as follows :— SALT. General.

PROVINCE.	Price of and Excise on Salt made Locally.	Duty on Imported Salt from England.	Duty on Salt Imported from other Sources.	Miscellaneous.	TOTAL.	Charges.	Net Salt Revenue.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Northern India - - -	1,822,443	—	—	16,215	1,838,656	113,952	1,724,704
Burma - - - - -	19,869	147,721	—	—	167,590	664	166,926
Bengal - - - - -	—	1,592,711	778,685	7,737	2,374,133	2,684	2,371,449
Madras - - - - -	1,614,446	443	1,300	12,587	1,629,776	199,643	1,430,133
Bombay - - - - -	2,146,348	628	2,500	69,245	2,218,721	157,462	2,061,259
TOTAL, 1893-94. - - -	5,603,104	1,741,503	777,485	106,784	8,228,876	474,404	7,754,471
1892-93 - - -	6,016,422	1,747,811	701,770	57,865	8,523,368	428,525	8,094,843

The charges above shown do not include a sum of about Rx. 300,000 paid under treaties to Native Chiefs who have assigned the management of their salt sources to the British Government. An increase of Rx. 319,000 in the salt revenue was shown in 1892-93, but a decrease of Rx. 340,371 occurred in the year 1893-94. The decrease was common to all provinces, but was specially large in Northern India. Some explanation of the falling off is given below. So far as figures are available for 1894-95, the salt revenue has recovered itself, and for the nine months, April to December 1894, the salt consumption of India was larger than it had been in the previous year, though not up to the level of 1892-93. During the last eight years the total salt consumption of India has been as follows :—

In the Year	Total Actual Consumption of Duty-paid Salt in India, inclusive of Burma.	
1885-86 - - - - - - - -	32,289,000	Maunds, each maund being equal to 82⅔ lbs. avoirdupois.
1886-87 - - - - - - - -	34,330,000	,,
1888-89 (The rate of duty was raised in January 1888 from 2 Rs. to 2½ Rs. per maund).	31,474,000	,,
1889-90 - - - - - - - -	33,486,000	,,
1890-91 - - - - - - - -	33,722,000	,,
1891-92 - - - - - - - -	34,851,000	,,
1892-93 - - - - - - - -	35,451,000	,,
1893-94 - - - - - - - -	34,029,000	,,

These figures are not absolutely accurate, because the amount of local salt consumed in Burma is not precisely known, but in the foregoing figures is estimated at 400,000 maunds in 1889-90 and subsequent years, and at 560,000 maunds in each previous year.

The Northern India Salt Department controls the salt sources of the Punjab and of Rajputana, whence are supplied the wants of the Punjab, Oudh, the North-Western Provinces, the northern districts of the Central Provinces, and Northern In

SALT. the greater part of the Rajputana and Central India States. The sales of duty-paid and free salt at the northern salt sources amounted in 1893-94 to 7,472,000 maunds, or 16 per cent. below the sales of the previous year. The great falling-off occurred in Sambhur lake salt, where stocks were very low, owing to the almost total suspension of salt manufacture during the season of 1892–93, when rain fell almost every month and floods repeatedly occurred. The sales of Didwana and Pachbadra salt showed a large increase, and salt from these sources, together with Baragora salt from Bombay, served in part to fill the gap caused by the disastrous failure of the Sambhur salt works. The yield of the Punjab rock salt mines showed a small decrease compared with the preceding year. Of the total consumption, the Sambhur salt lake supplied 2,795,000 maunds, the Mayo mine in the Punjab supplied 2,068,000 maunds, and the remainder came from minor salt sources. The gross receipts on account of salt revenue decreased from Rx. 1,957,000 to Rx. 1,789,000, and were the lowest for many years past; the charges came to 6·4 per cent. on the receipts, as against 4·8 per cent. in the previous year. The price of Sambhur salt, which had been exclusive of duty, $2\frac{2}{3}$ annas a maund, was raised by degrees to 8 annas a maund, in order to drive the dealers to other salt sources. The price of salt at the Cawnpore market rose, in consequence of the Sambhur failure, from $3\frac{3}{16}$ to $3\frac{7}{16}$ rupees per maund; Punjab rock salt at the end of the year was the cheapest salt in the Cawnpore market.

The number of persons prosecuted for breach of the salt law rose from 541 to 585; of this latter number 341 persons were acquitted and 194 were sentenced to imprisonment.

Bengal. The total quantity of salt on which duty was paid in Bengal during the year was 999,161,000 maunds, or 1·4 per cent. less than in the previous year. The decrease in consumption is attributed partly to the dearness of food, and partly to an advance in the price of salt. The amount of salt imported and manufactured during the year was 10,377,000 maunds, of which there came from,

	Maunds.		Maunds.
The United Kingdom - -	6,504,000	Red Sea and Persian Gulf Ports	910,000
Germany - - - -	800,000	Aden - - - - - -	1,350,000
Bombay - - - - -	503,000	Orissa Coast Factories - -	24,000
Madras - - - - -	47,000		

The gross salt revenue was Rx. 2,381,000, or 2 per cent. below the receipts of the preceding year, against an expenditure of Rx. 36,000. The consumption of licit salt in the seven saliferous districts outside Orissa increased by 3 per cent. In Orissa the consumption of locally-manufactured salt fell from 64,000 to 24,000 maunds; but the sales of Ganjam and Calcutta salt increased largely; and the total consumption of Orissa was nearly 10 per cent. larger than in the year 1892–93. The stocks of salt at the end of the year rose from 739,000 to 1,077,000 maunds; prices ranged from $3\frac{3}{8}$ rupees per maund near Calcutta at the cheapest season, to $4\frac{7}{8}$ rupees per maund in Lohardugga at the dearest season; in Orissa the price ranged from $3\frac{1}{2}$ to $3\frac{3}{4}$ rupees per maund. The average price of salt ruled everywhere higher than in the preceding year, owing mainly to an increase in the price of Liverpool salt, which is attributed to the coal strike, and partly to the heavy rains whereby salt manufacture and salt traffic were made more difficult. The average consumption of salt in Bengal, according to the census figures of 1891, was $10\frac{1}{4}$ lbs. per head; it was $10\frac{1}{2}$ lbs. in the saliferous tracts including Orissa, where it had been $9\frac{7}{8}$ lbs. per head in the previous year.

The number of prosecutions for offences under the salt laws fell from 1,472 in the previous year to 1,005, of which 231 against 682 cases in 1892–93 occurred in Orissa, and in 54 cases the accused persons were acquitted.

Madras. It was explained in a previous number of this Statement* that in Madras, where salt is made on the coast by solar evaporation, a limited number of Government salt

* *See* the Twenty-fourth Number of this Statement (for 1887–88) p 76, and the Twenty-fifth Number (for 1888–89) p. 73.

salt factories had been re-opened in order to remedy the evils of high prices and small stocks, which had resulted from the handing over of the manufacture of salt to capitalists under an excise system. The intention was to create as soon as possible a reserve of Government salt, but not to disturb the market by selling Government stocks unless the supply should run short or prices be forced up at any salt mart; the Government reserve stocks were eventually to be somewhat more than one-third of a year's consumption. During the year 1893-94 there were 67 factories at work, of which 19 were Government, and 48 private, establishments. The season was not favourable to salt manufacture, especially on the northern coast, where heavy falls of rain caused a disastrous failure at the salt works. The reserve of Government salt was brought up to 4,476,000 maunds. The average price of bonded salt throughout the Presidency, which had been $6\frac{1}{12}$ annas per maund under the excise system in 1887–88, was $3\frac{1}{4}$ annas per maund in 1893–94, or the same as in the previous year; and the highest maximum in any district was six annas at Chicacole for a short time while stocks were low, owing to the failure of the factories. The total quantity of salt manufactured during the year was 7,337,000 maunds against 9,244,000 in the preceding year, and an average of 5,260,000 maunds in the two years 1885–87, when the output of salt was too low. The salt stocks at the end of the year were equal to 22 months' supply, as compared with 23 months' supply at the end of the previous year, and five months' supply at the end of 1886–87. The reason for the maintenance of such large stocks is that an unfavourable season may in any year reduce the output of existing factories by 50 per cent. SALT. Madras.

The issues of Madras salt for home and inland consumption were 8,017,000 maunds, or $1\frac{1}{2}$ per cent. below the issues of the preceding year. The decrease was in part due to the fact that Western Mysore drew larger supplies than heretofore from Bombay by the newly-opened railway line.

The consumption of salt by 34,288,000 of the population of South India, including Mysore, Coorg, and certain Native States, but not including certain districts on the northern coast of Madras, came to 15·37 lbs. per head; the consumption by the population of the Madras Presidency only, exclusive of four coast districts, came to $16\frac{3}{4}$ lbs. per head.

The gross revenue from Madras salt was Rx. 1,814,000, or $7\frac{1}{3}$ per cent. below the receipts of the preceding year. The decrease was attributed partly to the reduced consumption, and largely to an increase in sales on credit.

During the year 133 bonded yards in the Madras Presidency were open for curing fish under special regulations, whereby cheap salt is sold to fish curers. The quantity of fish brought to be cured was 41,600 tons, or 7 per cent. less than in the previous year; 5,400 tons of salt were sold for curing fish in bond; and the average quantity of salt used was 2 cwts. 66 lb. to every ton of fish. The cost of the yards to the treasury was more than covered by the price realised for salt. Nearly all the salt fish is consumed within the Presidency, the exports being returned at 2,383 tons, valued at $1\frac{3}{4}$ annas (about $1\frac{1}{2}$ pence) per pound.

Prosecutions under the salt laws, though fewer than in the previous year, were still numerous; 15,900 persons were charged with salt offences, of whom 3,171 were released by departmental officers with a warning, and 12,402 were sent for trial. Of the persons tried during the year by magistrates, more than 99 per cent. were convicted. The average fine imposed on offenders against the salt laws was $1\frac{1}{3}$ rupees.

On the Bombay coast, salt is made, partly by boiling, and partly by solar evaporation, at 438 factories; 54 new factories or salt works were opened during the year 1893–94, mostly at Sanikatta on the North Kanara coast. Owing to the termination of the Portuguese treaty, British salt from the Bombay coast is now able to compete with Goa salt in the Malabar and Mysore markets on more favourable terms. The amount of salt manufactured was 8,832,000 maunds, or 325,000 maunds less than in 1892–93; the quantity of salt written off as wastage was $6\frac{3}{4}$ per cent. as compared with $8\frac{1}{2}$ per cent. in the previous year. The total removals of salt for consumption came to 8,886,000 maunds, or an increase of 170,000 maunds on 1892–93. The amount of duty-paid salt issued for consumption in the Bombay Presidency Bombay.

SALT. was 3,387,000 maunds, or 11·66 lbs. per head of the population, as compared with 11·11 lbs. in the previous year. In Guzerat, the richest part of the Presidency, the rate was 8·13 lbs. per head, and in the rest of the Presidency it was 13·65 lbs. The gross salt revenue receipts were Rx. 2,148,000, or Rx. 26,000 below the total of the previous year, and Rx. 104,000 below the corresponding figure for 1891-92. The falling off in revenue was due to larger payments of duty having been postponed to the following year; the total removals of salt for consumption were, as above stated, larger than in 1892-93, though not so large as in 1891-92. During the year, the average price of salt, exclusive of duty, ranged from 2 annas 3 pie per maund at the Konkan works to 3 annas 11 pie per maund at the Shiroda works; the wholesale price of duty-paid salt ranged from Rs. 2 annas 11 per maund in the cheapest district, Kolaba, during April to Rs. 4$\frac{1}{10}$ per maund at Bombay, the dearest market, during December. In Bombay eight fish-curing yards were at work; the quantity of fish brought to be cured in bond was 1,529 tons, and 389 tons of cheap salt were issued to fish curers.

The number of persons tried for offences under the salt laws was 941, against 957 in the previous year; the number convicted was 802 against 773.

Sind. In Sind the amount of duty-paid salt passed into consumption rose from 249,000 maunds to 263,000 maunds, and the salt revenue was Rx. 70,300, or about the same as the receipts of the previous years. The consumption of duty-paid salt came to 7·43 lbs. per head of the population against 7·41 lbs. in the previous year. The average retail price of salt fell slightly, and was Rs. 3. 6a. 2p. per maund.

The number of prosecutions for salt offences fell from 232 to 161; the quantity of illicit salt seized was 14 maunds.

Burma. The amount of salt imported into Burma in 1893-94 was 47,492 tons, against 34,665 tons in the previous year, and an average of 56,000 tons in the two years 1890-92. The revenue on salt manufactured locally was Rx. 19,967, as compared with Rx. 17,673 in the year 1891-92. The total salt consumption of Burma was approximately 1,700,000 maunds during the year, equal to about 17½ lbs. per head for 8 million people in Burma and the Shan States.

EXCISE.

EXCISE. General The excise revenue of India is raised partly from the following sources:—(1) Monopolies for the sale of liquors and intoxicating drugs over defined areas: (2) Still-head duty on all spirits manufactured at distilleries; (3) Licenses for the working of stills at specified places; (4) Licenses for the sale of various kinds of liquor.* Tobacco, which is grown in almost every village, and is consumed by nearly all men and by many women in the empire, is not subjected to any duty; tea and coffee, which are grown largely for Indian consumption and for exportation, are also free from all duties. Over almost the whole of Bombay and the Punjab, over the populous parts of Madras, the North-Western Provinces, Oudh, and Burma, and over some parts of Bengal and the Central Provinces, a still-head duty is levied on all Indian spirit according to its alcoholic strength. The still-head duty ranges as high as five rupees per gallon of London proof spirit; if the cost of licenses be added, the total duties are in places more than seven rupees per gallon of London proof spirit. The system of excise management followed in these tracts is called the central distillery system. Over a large, but decreasing part of Bengal, and over most of the Central Provinces, over the whole of Assam and Berar, and over limited tracts in other provinces, revenue is levied on Indian spirits by leasing the spirit monopoly to the highest bidder, which is called the farming system; or by licensing the establishment of private stills, which is called the out-still system. The central distillery system is admittedly the best for preventing the spread and consumption of cheap liquor; and the Government of India have decided to extend that system, and to restrict the farming and out-still systems as narrowly as possible. The difficulty is that in sparsely-peopled forest tracts the materials for illicit distillation

* A customs duty is also levied on all imported spirits, wines and beer. The import duty is six rupees per gallon on London proof spirit; 2½ rupees per gallon on sparkling wines; one rupee per gallon on other wines; and one anna per gallon on beer.

distillation are everywhere available; the tribes addicted to drinking often live in these regions; an adequate and trustworthy preventive staff cannot be kept in such places; and illicit practices prevail, to the consequent demoralisation of the people, if weak liquor cannot be obtained in some lawful way. Licensed out-stills are sometimes the only means of meeting the requirements of such exceptional tracts. EXCISE.

The following table gives the excise revenue of 1893-94 for each province under the different heads, as shown in the Finance and Revenue Accounts:—

	India, General.	Bengal.	North West Provinces and Oudh.	Punjab.	Lower Burma.	Upper Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
License and Distillery Fees, and Duties for the Sale of Spirits, Fermented Liquors and Drugs, viz.:—	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
License Fees and Farmers' Rent.	6,536	632,624	150,515	57,863	153,658	24,282	50,425	43,117	647,381	101,320	1,867,751
Distillery Fees - - -	18,031	5,858	93	419	1,338	1,637	198,452	-	180	10,250	136,262
Still-head Duty - -	58,657	197,393	257,999	67,372	22,936	9,279	23,198	133	814,404	699,138	1,650,509
License Fees for sale of Opium and its preparations.	1,889	55,219	16,990	36,057	50,828	8,908	28,322	30,601	31,269	1,907	261,990*
License Fees for sale of other drugs.	3,404	22,120	74,207	18,069	-	390	14,832	16,314	6,124	32,447	187,907
Rent of Toddy Trees - -	4,644	291	8,731	-	32	89	2,161	-	239,173	109,502	364,624
Total - - -	93,191	913,505	508,535	179,780	228,792	44,585	217,390	90,166	1,238,531	954,568	4,469,043
Duty on Opium consumed in India.	1,449	164,210	63,099	13,916	110,696	13,544	46,872	164,853	44,718	108,843	732,200*
Acreage on Land cultivated with the Poppy.	-	-	-	3,107	-	-	-	-	-	-	3,107
Fines, Confiscations, Miscellaneous.	609	1,316	568	330	84	12	2,119	53	4,217	7,817	17,125
Duty on Ganja - - -	342	135,786	-	-	-	-	12,986	17,147	-	537	167,098
TOTAL Revenue - - -	95,591	1,214,817	572,202	182,284	339,572	58,141	279,367	272,519	1,287,486	1,071,765	5,388,573
Charges - - - -	2,571	64,854	15,783	9,217	7,491	2,912	4,603	1,060	60,507	34,893	193,293
Net Revenue, 1893-94 -	93,020	1,149,963	556,419	171,067	332,081	55,229	275,764	271,459	1,226,979	1,036,872	5,195,280
Net Revenue, 1892-93 -	101,034	1,093,297	534,094	177,189	468,661	-	271,377	257,459	1,153,732	992,092	5,049,432

The sum of Rx. 589,158 is yielded by import duties on liquors and spirits imported into India during the year 1893-94, and thus the whole drink and drugs revenue of India amounts to $4\frac{1}{6}$ annas a head on the whole population of British India. There has been a considerable increase in the excise revenue during the past 30 years; but this increase, though in part due to enhanced consumption of liquors caused by the growth of population and the general increase of earnings, is yet largely, and in some localities mainly, the result of improved excise administration, which has doubled or trebled the rates of liquor duty, and has, at the same time, restricted the use of illicit intoxicants. The totals of the net excise and customs revenues on liquors and drugs consumed in India during the past 20 years compare thus:—

	Rx.		Rx.
1874-75 - - -	2,633,369	1889-90 - - -	5,294,420
1880-81 - - -	3,515,062	1891-92 - - -	5,516,827
1883-84 - - -	4,259,099	1892-93 - - -	5,659,685
1886-87 - - -	4,864,764	1893-94 - - -	5,784,438

For the 227 millions of people who inhabit the several provinces of British India and Berar, the total number of shops licensed for the retail

* *See* Footnote on p. 43.

Excise.

sale of spirits, fermented liquors, opium and drugs, is as follows, province by province:—

PROVINCE.	Number of Retail Shops licensed in 1893-94 for the Sale of					
	Spirits made in India.	Imported Spirits or Liquors.	Toddy and Rice Beer or other Indian Fermented Drinks.	Opium and its Compounds.	Narcotic or Intoxicating Drugs, other than Opium.	Quantity of Opium sold for Local Consumption so far as known.
						Maunds, 82 lbs. each.
Bengal	3,289	562	15,632	2,143	3,105	1,970
North West Provinces and Oudh.	6,713	258	4,117	1,067	3,905	1,766
Punjab	1,259	468	38	1,789	1,636	1,630
Burma	47	439	931	44	None.	1,310
Central Provinces	6,266	66	742	880	986	658
Assam	200	138	14	865	271	1,385
Madras	11,402	656	19,125	1,057	250	942
Bombay	2,850	415	1,859	1,140	1,232	1,625
Berar	1,122	22	972	475	228	423
TOTAL 1893-94	33,148	3,024	43,430	9,460	11,613	11,709
TOTAL 1892-93	34,089	2 901	45,013	9,521	11,467	11,738

There are thus 100,675 licensed shops for the retail sale of intoxicants and narcotics in British India, or one shop to an average of 2,255 of the population. In the United Kingdom during the same year there were 163,119 licenses for the sale of beer, wine and spirits, or one shop to 237 of the population. In neither computation are occasional or part-year licenses reckoned; of these latter licenses 31,888 were issued in the United Kingdom during the year.

Bengal.

In Bengal the total excise revenues of 1893-94 and the two previous years were as follows:—

Receipts from	1891-92.	1892-93.	1893-94.
	Rx.	Rx.	Rx.
Country spirits	481,464	502,342	525,190
Foreign liquors and rum	45,379	62,700	66,979
Fermented local liquors, toddy and rice-beer	126,151	128,425	136,289
Opium and its compounds	224,050	219,581	223,772
Ganja, bhang, and their compounds	235,056	245,070	260,364
Miscellaneous	881	1,148	1,005
TOTAL EXCISE REVENUE	1,112,981	1,159,266	1,213,709
Add duties on imported liquors	160,360	167,693	164,271
TOTAL REVENUE FROM DRINKS AND DRUGS.	1,273,341	1,326,959	1,377,980

The policy of substituting the central distillery system for the out-still system of raising revenue from country spirits was not carried further in Bengal during the year. Out-stills had been abolished in 1890 over all districts of the Burdwan, Presidency, Dacca and Orissa divisions, containing a population of 30 millions. The number of central distilleries was 32 as compared with 34 in the previous year. The maximum number of licensed out-stills in the whole province was 2,034 as compared with 1,931 in the previous year, and 5,250 out-stills in the year 1881-82. The total number of retail licenses for the sale of

of country spirits, rum and imported liquors, during the past three years, has been :— Excise.

	1891-92.	1892-93.	1893-94.
Number of licenses granted for the retail sale of—			
Country spirits from out-stills - -	1,770	1,931	2,034
Country spirits from central distilleries	1,149	1,175	1,255
Rum, imported wines, spirits and other liquors.	582	535	502
	3,501	3,641	3,791

Much of the out-still liquor is said to be of very low alcoholic strength. The quantity of spirit issued from the out-stills was reported to be equal to 1,233,000 gallons of London-proof liquor, as compared with 1,162,000 gallons in the previous year. The out-turn from central distilleries in the year was 417,000 gallons London-proof spirit against 402,000 gallons in the previous year. The still-head duty levied on central distillery liquor ranged from 1⅛ to 5 rupees per gallon of proof spirit. Including still-head duty, license fees and other taxation, the total revenue on distillery liquor came to 6 rupees per gallon of London-proof spirit; the similar revenue from out-stills came to 2¼ rupees per gallon of reported consumption of London-proof spirit. The increase of consumption during the year was greater in the tracts supplied by out-stills than in the central distillery area.

The revenue from toddy was Rx. 101,637, as compared with Rx. 95,040 in the previous year; the number of licensed shops for fermented toddy was 13,952 against 13,776 in 1892-93, and 30,268 in the year 1881-82. In 1893-94 as many as 2,461 shops, or more than one-seventh of all the toddy shops, were for the sale of unfermented toddy or palm-tree juice. The number of pach-wai or rice-beer shops, was 1,680. The number of licensed ganja shops was 2,715, as compared with 2,672 in the preceding year, and the amount of licit ganja consumed was 5,116 maunds, against 5,451, and 5,677 in the two preceding years; the rate of duty has been twice enhanced during the past three years, and the consumption of ganja has steadily declined, while the revenue therefrom has increased. The number of shops licensed for the retail sale of opium was 1,755 or 35 more than in the preceding year; the amount of licit opium consumed rose from 1,934 to 1,970 maunds. The number of shops licensed for selling opium, prepared for smoking after the Chinese fashion, known as chandu, was 73, against 71 in the previous year; and the licenses for selling madak, or opium prepared for smoking after the Bengali manner, increased from 264 to 313.

The number of arrests for offences against the excise laws rose from 4,634 to 5,138, and convictions were obtained against 4,381 persons; of whom 363 persons were convicted of the offence of illicit distillation.

The latest excise report for the North-Western Provinces and Oudh relates to the year ending in September 1893. For the last three years the excise revenues have been :— North-Western Provinces and Oudh.

Receipts from	1890-91.	1891-92.	1892-93.
	Rx.	Rx.	Rx.
Country spirits - - - - - - -	307,965	322,193	359,517
Foreign liquors and rum - - - -	45,822	45,313	37,030
Opium - - - - - - - -	77,328	78,050	80,783
Other drugs - - - - - - -	69,221	71,209	72,155
Toddy and miscellaneous - - - -	10,156	8,819	9,413
TOTAL - - -	510,492	525,584	558,898

Excise. Though there was an increase of Rx. 33,313, or 6½ per cent., over the revenue of the preceding year, still the total excise revenue was lower by Rx. 12,000 than it was in 1888–89. The increase of revenue is attributed to the good harvests and to the cheapness of food and of materials for liquor during the year.

The revenue from country spirits was raised as follows:—

(*a*) Rx. 318,100 under the central distillery system, which extends over districts inhabited by 38¼ millions of people.

(*b*) Rx. 26,900 under the out-still system, which extends over tracts containing 5⅔ millions of people.

(*c*) Rx. 14,500 under the farming system, which extends over tracts containing 3⅛ millions of people.

The total amount of spirit passed out of all central distilleries was 1,526,364 gallons, against 1,368,623 gallons in the previous year, and against 2,056,314 gallons in the year 1885–86. None of the liquor issued during the year was stronger than 23 degrees below proof, and 8 per cent. of it was weaker than 48 degrees below proof. The total consumption of the year represented 1,115,672 and 977,574 gallons of London proof spirit in the two years; and the total revenue from distillery liquor came to 2·8 rupees per gallon of L. P. spirit. The number of distilleries was 39, against 44 in the previous year. The number of licensed retail shops for country spirits in the two provinces further fell from 5,315 to 5,257 in the central distillery tracts; and from 1,504 to 1,456 in the tracts where the out-still and farming systems prevailed; the retail licenses for rum and foreign spirits fell from 260 to 258; and the consumption of rum from the Rosa factory rose from 31,962 to 32,004 gallons.

The number of shops licensed for the sale of opium and its compounds was 1,041, as compared with 1,016 in the previous year. The chandu and madak shops, licensed for selling opium prepared for smoking, were reduced to 26 in the year to which the report refers, and for the current year no licenses of the kind have been given. The quantity of licit opium passed into consumption was 1,766 maunds, against 1,703 maunds in the previous year. The price at which opium is issued from the Government stores was enhanced from 16 rupees to 17 rupees in 25 districts, and to 18 rupees in 11 districts of the combined provinces. The number of shops licensed for the sale of other narcotic drugs was 3,905, as compared with 3,872 in the previous year. The increase was nearly all in one district, and is the subject of local inquiry. The number of licensed toddy shops decreased from 4,411 to 4,157.

The number of prosecutions under the Excise Act was 1,015, or 13 per cent. less, and under the Opium Laws 571, or 7 per cent. less than in the previous year; the prosecutions for illicit distillation were 202 against 252 in the preceding year. The proportion of convictions to prosecutions was 84 per cent., as compared with 80 per cent. in the two previous years.

Punjab. The excise revenues of the Punjab in the last three years were raised as follows:—

Receipts from	1891–92.	1892–93.	1893–94.
	Rx.	Rx.	Rx.
Country spirits	97,094	99,027	104,927
Imported liquors and rum	30,600	32,435	34,535
Opium	46,177	47,773	53,282
Other drugs and miscellaneous	19,060	15,909	18,850
Total	192,931	195,144	211,594

The increase of 8½ per cent. in the revenue accrued two-thirds under liquors and one-third under opium and drugs; it is ascribed to the generally prosperous character of the year, which was marked by good crops, low prices, and healthy seasons. In the previous year the prevalence of epidemic fever during three months of the year had restricted the consumption of spirits.

The

The central distillery system is in force throughout the whole province, save in small parts of the Gurgaon, Firozpur and Kangra districts, and there were during the year 27 central distilleries. The rates of still-head duty are four rupees per gallon of proof spirit, three rupees per gallon of spirit less than 25 degrees below proof; 2½ rupees for spirit from 50 degrees to 25 degrees below proof, and two rupees for spirit more than 50 degrees below proof. Country spirits in the Punjab are distilled from molasses. The total consumption of licit spirits and the number of licensed shops for the past two years are returned thus:— Excise.

	1892-93.	1893 94.
Consumption of country spirits computed at London proof, in gallons	192,279	214,118
Ditto rum, London proof, in gallons	37,664	48,156
Ditto other imported liquors, excluding beer, in gallons	100,023	101,782
Licensed retail shops for country spirits	1,271	1,259
Licensed retail shops for rum and imported liquors, including hotels, refreshment rooms, and travellers' rest-houses.	438	468

The opium revenue comprised Rx. 3,027 from an acreage fee on lands growing the poppy, and Rx. 36.338 from licenses for the vend of opium, besides Rx. 9,030, the duty on imported opium. The acreage fee in all districts but five was increased from 2 Rs. to 4 Rs. per acre. The area licensed for poppy cultivation had shrunk from 15,254 acres in the year 1888-89 to 9,857 acres in 1892-93, and was 10,012 acres in the year under report. The number of shops, licensed for retail sale of opium, was 1,789, as compared with 1,780 in the previous year, and 1,910 in the year 1889-90; the quantity of licit opium returned as consumed was 1,630 maunds, as compared with 1,523 maunds in 1892-93. Licenses for shops where opium preparations could be consumed on the premises, *chandu* shops, or "opium dens," as they have been called, were all withdrawn years ago. It is reported that few people, and those mostly immigrants from outside the province, now indulge in smoking opium in private. The number of shops licensed to sell hemp and other drugs was 45, besides 1,591 opium shops licensed also to sell hemp and other drugs.

It is reported that, in consequence of the stringent measures taken during recent years, illicit distillation has much abated in some districts, but it is believed to be still rife in the districts of Hoshiarpore, Lahore, Gordaspur, Amritsar and Ambala. The excise system has improved in some of the Native States, and generally the Chiefs have closed all liquor shops within three miles of the British border. The number of persons prosecuted under the liquor laws rose from 493 to 592, and under the opium laws from 482 to 740, as compared with the previous year.

In Burma the excise revenue during the past three years was raised thus:— Burma.

Receipts from	1891-92.	1892 93.	1893-94.
Lower Burma:	Rx.	Rx.	Rx.
Distillery and imported liquors	104,150	116,992	90,912
Out-stills	6,600	6,905	7,605
Toddy	27,997	30,045	31,175
Other fermented liquors	53,810	49,287	55,461
Opium	191,162	214,202	154,783
TOTAL EXCISE REVENUE	383,719	417,431	339,936
Add duty on imported liquors	86,784	103,283	88,220
Upper Burma excise receipts	51,264	58,463	58,131
TOTAL REVENUE FROM DRINK AND DRUGS	521,767	579,177	486,287

EXCISE.

Two central distilleries were working during the year in Lower Burma; they produced 33,987 gallons of spirits, as compared with 22,358 gallons produced by the same distilleries in the preceding year. The importations of foreign and Madras spirits decreased considerably. The fall in consumption of and revenue from spirits was attributed to the low prices of rice, whereby the power of the people to purchase stimulants was materially reduced. At the beginning of the year the duty was raised from five rupees to six rupees a gallon on local distillery and Madras liquor at London proof. The number of out-stills in Lower Burma was 36, as in the previous year; and in Upper Burma 14, as in 1892-93. Three central distilleries were at work in the upper province, and produced 13,754 gallons of spirits, against 33,057 gallons in the previous year.

The number of retail shops licensed under the excise and opium laws in the two sections of the province during the last two years was:—

	Lower Burma.		Upper Burma.	
	1892-93.	1893-94.	1892-93.	1893-94.
Out-still shops	36	36	14	11
Distillery spirit and foreign liquor shops	291	293	143	146
Toddy shops	858	856	74	75
Rice beer and other fermented liquor shops.	225	223	—	—
Opium shops	20	21	14	23
Licit opium consumed (in maunds)	1,603	1,125	133	185

There was a large decrease in the consumption of and revenue from opium in Lower Burma, consequent on the change of system that took effect on the 1st January 1894. From that date opium cannot be legally sold to or possessed by Burmans, unless they have registered themselves as consumers before the end of June 1894. Non-Burman residents are allowed to buy and possess opium under the same restrictions as before. A maximum supply of opium is fixed for each licensed shop, calculated according to the number of legitimate consumers that are likely to frequent such shop. There are 17 licensed opium shops in Lower Burma, and opium will be sold to legitimate consumers from the Government treasury at four places where the number of such persons is not large enough to warrant the licensing of a shop. The total issues permissible for the whole province have for the present been fixed at 508 maunds, as compared with 1,603 maunds issued in 1892-93. The selling price of opium has increased greatly under these regulations, the inducements to smuggling are proportionately increased, and the preventive staff has been strengthened. It is not known how far the revenue will be affected by these rules; but there was a falling off of Rx. 60,000 on the opium revenue of the past year, though the new system did not take full effect till after the 1st January 1894. Further restrictions are also being placed on the consumption of opium in Upper Burma.

Reported offences against the excise and opium laws in Lower Burma rose from 3,083 to 3,405; and 2,358 persons were convicted. Of the total reported offences, 1,604 were for illicit dealings in opium. The number of illicit stills suppressed rose from 113 to 166 during the year. In Upper Burma, 744 offences against the excise laws were reported, of which 277 were opium cases; 725 persons in all were convicted, of whom 165 were sent to prison. The number of illicit stills suppressed was 65, as compared with 44 in the previous year.

In

In the Central Provinces the excise receipts of the past three years have been as follows:— Excise. Central Provinces.

Receipts from	1891-92.	1892-93.	1893-94.
	Rx.	Rx.	Rx.
Country spirits	173,447	170,179	171,124
Opium	97,967	95,866	99,129
Ganja	23,669	26,219	27,813
Toddy	1,882	2,783	2,161
Miscellaneous	2,832	3,355	3,142
TOTAL	298,507	298,402	303,369

The greater part of the country is supplied with spirits from out-stills, of which there were licensed 1,812 at the close of the year; besides 16 central distilleries and five contract stills. The chief changes of the year were the abolition of all out-stills in the Nagpur district; and the reduction of the number of out-stills in the province from 1,959 to 1,812. One result of the change in the Nagpur district was that the price of country spirits rose to double and treble the old rates. The area supplied by central distilleries and by out-stills have been respectively increased and reduced by 3,368 square miles. At contract stills a fixed daily fee is levied on each still actually in use, and care is taken that no still is used on any day for which the prescribed fee has not been paid. At out-stills the restrictions on manufacture of spirit are the limitation of the number of shops to be supplied, and the limitation of the number and size of the vessels used for distillation. Most of the spirit consumed is about 60 degrees below proof. The duty ranges from 12 annas on liquor 45 degrees below proof, to 3 rupees a gallon on proof spirit.

The receipts on account of country spirits, so far as they can be distinguished, were in round numbers as follows:—

	1892-93.	1893-94.
	Rx.	Rx.
From central distilleries	53,000	69,000
From contract stills	4,000	4,000
From out-stills	117,000	97,000

The number of permanent retail liquor shops had been reduced in the previous year to 6,821, and 555 more shops were closed during the year, whereby the total was reduced to 6,266. The number of temporary shops licensed for different periods was 348 during each of the two years. No trustworthy information exists regarding the quantity or strength of the liquor made at out-stills, so no estimate of the total liquor consumption can be offered; at most of the shops in the interior the liquor is usually of very low alcoholic strength. The material from which liquor is distilled is everywhere the flower of the mhowa tree. The number of licenses for the retail of imported liquors was 66, against 46 in the previous year. The quantity of Shahjahanpore rum imported into the province rose from 3,254 gallons to 4,281 gallons; and this liquor, at L. Proof strength, sold in the Nagpur bazaar at 10½ rupees per gallon and 3 annas per glass.

The number of shops licensed for the sale of opium was reduced during the year from 943 permanent and 509 temporary shops, or 1,452 in all, to 880 permanent and 509 temporary shops, or 1,389 in all; and the quantity of Government opium sold to the licensed vendors rose to 658 maunds from 631 maunds in the previous year. The number of opium vendors that were also licensed to sell madak, or opium prepared for smoking, was reduced from 183

Excise.

to 137. Inquiries made during the year showed the number of recognised opium smokers to be about 9,555 in the whole of the Central Provinces. The amount of opium supplied on payment to feudatory chiefs and zemindars was 169 maunds, as compared with 155 and 171 maunds in the two previous years. The number of permanent shops licensed for the retail sale of ganja and its compounds was 986, or 78 less than in the preceding year; while the number of temporary shops fell from 475 to 463. The quantity of ganja passing into consumption rose from 1,194 to 125 maunds; while the quantity sold to feudatory chiefs increased from 273 to 311 maunds.

There was an increase of 56 in the number of prosecutions under the excise laws, and a decrease of 124 in cases under the opium laws. Out of 284 cases under the Opium Act, 161 were for the possession of smuggled opium; and the number of cases in which more than 10 lbs. of smuggled opium was found was only three in all. Out of 603 prosecutions under the Excise Act, 142 were for the illicit manufacture of liquor, and 198 for illegal possession of liquor. Out of 1,092 persons prosecuted, 871, or 79 per cent., were convicted.

Assam.

The excise demand of Assam for the year 1893-94 and previous years was distributed thus:—

Receipts from	1891-92.	1892-93.	1893-94.
	Rx.	Rx.	Rx.
Country spirits	35,126	38,499	38,553
Imported liquors and rum	3,598	3,524	2,343
Opium and its compounds	190,205	187,521	194,847
Ganja and its compounds	28,671	30 712	33,159
Miscellaneous, including toddy, &c.	863	600	165
TOTAL Rx.	259,163	260,863	269,067

The whole revenue of the year was collected, being 3 per cent. above the receipts of the previous year. The revenue from country spirits is raised entirely under the out-still system; the sites of shops are fixed; the right to have one still, and to sell spirits at each shop, is sold annually by auction. The number of licensed retail shops for country spirits was 200, against 192 in the previous year; the additional shops were licensed to meet the requirements of labourers on the railway, to counteract frontier smuggling, or at the request of the inhabitants of the neighbourhood. Much of the liquor is weak; it sells from six annas to one rupee per quart bottle. Out of 26 samples tested at different shops in each of the plains districts, 18 were found to be weaker than 50 per cent. below L. proof, seven samples were from 25 per cent. to 50 per cent. below proof, and one sample was stronger than 25 per cent. below proof. The number of retail shops licensed to sell rum was 19 against 31 in 1892-93; this rum is sold at from 12 annas to two rupees per quart bottle. Owing to the closing of the distillery no rum was distilled in Assam during the year; while the imported rum fell from 3,447 to 877 gallons. The number of shops licensed for the sale of foreign liquors, including licenses on board steamers, was 109, or 20 more than in the previous year. For toddy four licenses, and for rice beer 10 licenses were issued. The number of licensed ganja shops was 271, or one less than in the previous year; and the quantity of ganja disposed of during the year was 654 maunds, against 621 in the year 1892-93. Ganja is consumed chiefly in the two districts of the Surma valley. The issue price of ganja from the Government Stores was raised 14 per cent. in April 1893; the last previous enhancement took place in April 1891. Opium gave the bulk of the increase in the year's revenue, and continues to yield three-quarters of the total excise revenue of Assam. The issue price of opium in Assam is 37 rupees per seer, as compared with 7¼ rupees, the cost of production at the Government factory. The number of licensed opium shops has been gradually reduced from 1,283 in the year 1883-84 to 953 in the year 1891-92, and to 865 in the year 1893-94; while the quantity of licit opium consumed

was

was 1,385 maunds, against 1,334 maunds in the preceding year, 1,494 in the year 1889-90, and 1,874 maunds in the year 1875-76. The number of shops licensed for the sale of madak and chandu, preparations of opium, was reduced to 15 during the year. Excise.

The number of prosecutions under the excise and opium laws fell from 660 to 478, and convictions were obtained against 83 per cent. of the accused persons. No cases of unlawful cultivation of the poppy were reported, while 45 cases of unlawful cultivation of ganja came to light; 79 cases of illicit manufacture and sale of spirits were prosecuted. Most of the other cases were of trifling character; and only one case of smuggling opium from beyond the frontier was reported during the year.

The excise revenue of Madras during the last three years was raised thus:— Madras.

Receipts from	1891-92.	1892-93.	1893-94.
	Rx.	Rx.	Rx.
Country spirits	549,892	524,831	546,414
Toddy alone	549,668	576,616	616,069
Foreign liquors and miscellaneous	36,643	40,600	36,530
Opium and other drugs	68,679	69,695	78,406
TOTAL - - - Rx.	1,204,882	1,201,742	1,277,419
Add,—Customs Duties on imported liquors	102,474	102,302	94,278
TOTAL REVENUE FROM DRINK AND DRUGS - - Rx.	1,307,356	1,304,044	1,371,697

Duties on country spirits are raised under the central distillery system over the whole Presidency, except in Malabar, Ganjam, Godavery, Vizagapatam, and parts of two other districts. In these exceptional tracts, which contain a population of five millions, or one-seventh of the Presidency, the monopoly of manufacture and vend is farmed out, but the farmer has to pay stipulated rates of duty on all spirit that he distils or sells. Shop licenses are sold by auction in all the towns, and in most of the rural circles. Over a gradually increasing area a tree tax is imposed on all palm trees tapped for toddy, while the shops for retail sale of toddy are sold by auction to the highest bidder. The rates of still-head duty range from 5 rupees a gallon on proof spirit to $\frac{3}{4}$ of a rupee per gallon on spirit 60° under proof; while the total taxation, including license fees, ranges from $2\frac{1}{3}$ rupees to $7\frac{1}{2}$ rupees per gallon of proof spirit in the several districts. Much of the spirit consumed in the Madras Presidency is made from sugar at large distilleries worked with modern appliances. The number of licensed retail spirit shops had been reduced from 17,736 in 1888-89 to 11,974 during the year 1892-93, and came down to 11,402 in 1893-94; the licenses for the retail sale of foreign liquors were 656 against 693 in the preceding year. The quantity of foreign spirit imported into Madras was 167,472 gallons, or 12,611 gallons less than in the previous year. The total quantity of licit spirits issued from the distilleries, reduced to London proof strength, was 901,000 gallons in 1893-94 against 879,000 gallons in the preceding year and 928,000 gallons in 1891-92.

The number of licensed toddy shops was 19,125 against 18,923 in 1892-93 and 26,180 in the year 1888-89. The number of licensed shops for opium and its preparations increased from 1,011 in the previous year to 1,057, besides 250 shops licensed for the sale of hemp drugs. The total quantity of opium consumed rose from 72,907 lbs. in the year 1892-93 to 75,369 lbs. in the year 1893-94. The consumption of ganja and bhang was 1,983 maunds.

The total excise revenue of Madras fell on the population at the rate of about $5\frac{5}{8}$ annas per head, as compared with $5\frac{1}{4}$ annas in the previous year. The number of persons prosecuted for offences against the excise laws was 24,891 against 24,255 in the previous year, and 83 per cent. of those tried were convicted. The number of reported cases of illicit distillation and possession of illicit spirits fell from 1,853 to 1,605, while the reported cases of illicit manufacture of toddy increased from 14,837 to 15,706.

In

EXCISE. Bombay.

In the Bombay Presidency the central distillery system obtains nearly everywhere, and the area over which the outstill and farming systems prevail consists of two comparatively uncivilised tracts in the Panch Mehals. In several of the minor Native States the British system of excise management has been adopted; in some others the chiefs have engaged to manage their excise affairs so as to avoid competition with British excise arrangements. The main peculiarities of the Bombay system are, that spirit must be sold of specified maximum or minimum alcoholic strength; and that in some districts a tax is imposed on every toddy tree that is tapped for its juice. In the Bombay Presidency spirits are distilled from fermented mhowra (or mhowa) flower and from fermented toddy, or juice drawn from incisions in the trunk of three or four species of palms. The general fiscal results of the excise management of the last two years were:—

Receipts from	1892-93.	1893-94.
	Rx.	Rx.
Locally made liquors, including toddy	877,241	880,253
Licenses on foreign liquors and duty	11,202	11,372
Opium	92,733	128,795
Intoxicating drugs	30,804	33,337
Miscellaneous items	8,344	12,956
TOTAL EXCISE REVENUE Rx.	1,020,324	1,066,713
Import duties on liquors for Bombay and Sind	231,941	243,115
TOTAL REVENUE FROM DRINK AND DRUGS Rx.	1,252,265	1,309,828

The rate of still-head duty ranges from four rupees to one rupee per gallon of London proof spirit; and the average over the greater part of the Presidency is about three rupees per gallon. The rates were raised during the year in the Ahmednagar, Sholapur, and Bijapur districts.

The number of licensed shops in Bombay and Sind during the past four years is returned at,—

	1890-91.	1891-92.	1892-93.	1893-94.
For—				
Country spirit	2,960	2,930	2,863	2,850
Toddy	1,873	1,803	1,793	1,859
Drugs other than opium	1,312	1,241	1,253	1,232
Opium	1,283	1,248	1,162	1,140
Imported liquor	479	475	412	415

The new law limiting the trade in mhowra flower was in force during the whole of the year; rates of still-head duty were enhanced in some districts as above stated; the farming of the monopoly of toddy (fermented palm-tree juice) was stopped, and the revenue was collected direct throughout the Deccan. The increase of revenue on country spirits accrued chiefly in Sind, Guzerat, Thana, and Khandesh; and was attributed in part to the satisfactory character of the season. The total consumption of excised country spirits in all parts of Bombay during the past two years is returned as equivalent to 2,210,986 gallons of London proof spirit for 1892-93, and to 2,191,569 of London proof spirit for 1893-94. Thus the consumption of spirit shows no increase. The consumption of opium in British districts was 1,265 maunds in 1893-94, as compared with 1,589 maunds in the previous year, and 1,837 maunds the average of the three years 1889-92. The number of licensed opium shops was 1,140, compared with 1,162 in the previous year. The consumption of licit opium in the districts of the Bombay Presidency was 130,043 lbs., as compared with 127,149 lbs. and 140,638 lbs. in the two years 1891-93. The quantity of opium

opium taken by Native States from the Bombay Government was 97,641 lbs., against 93,364 lbs. and 106,665 lbs. in the two previous years. EXCISE.

In Berar the excise revenue demand of the last three years has been as follows:— Berar.

	1891–92.	1892–93.	1893–94.
	Rx.	Rx.	Rx.
Country spirit	138,309	138,637	123,497
Opium and drugs	30,080	26,497	27,127
Toddy	4,568	4,591	4,311
Foreign liquors	180	185	210
Total Rx.	150,902	169,910	155,145

Over the greater part of Berar the revenue on country spirits was still raised by selling annually at auction the monopoly of the spirit trade in the circles into which the province was divided; but into the Ellichpur district and part of the Amrawuttee district the central distillery system was introduced, with a duty of 1½ rupees per gallon of liquor 25° below London proof. The reduction of 1¼ lakhs in the revenue was due, nearly half to the change of system in Ellichpur and Amrawuttee, and nearly half to failure of harvests and of the mhowra (from the flower of which spirit is made) in the Wun district. The number of shops licensed for the retail sale of country spirits was 1,122, as in the previous year, and for imported liquors, 22 against 19. The number of licensed toddy shops remained at 972, or only one less than in 1892–93. The number of licensed opium shops was reduced to 475, as compared with 478 and 585 in the two previous years, and the quantity of opium consumed fell to 423 maunds against 460 in the previous year, and 545 maunds in the year 1889–90. The number of licensed ganja shops fell from 484 to 228, and the quantity consumed is returned at 347 maunds of uncleaned and 389 maunds of cleaned ganja. Prosecutions under the excise law rose from 57 to 73, and under the opium law from 117 to 137. There were five prosecutions for smuggling opium, and several ingenious attempts to smuggle the drug were frustrated.

STAMPS.

The stamp revenue is leviable under Act VII. of 1870 (the Court Fees Act), which imposes fees on plaints, petitions, and other documents filed before civil, criminal, or revenue courts, and under Act I. of 1879 (the Stamp Act), which imposes duties on commercial transactions recorded in writing, such as conveyances, bonds, cheques, bills of exchange, receipts, and the like. The following table gives the receipts and charges; province by province, for the year, 1892–93:— STAMPS

	Bengal.	North Western Provinces and Oudh.	Punjab.	Lower Burma.	Upper Burma.	Central Provinces.	Assam.	India, General.	Madras.	Bombay.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Sale of court fee stamps	1,149,855	547,491	274,717	80,213	19,655	122,635	60,225	30,896	469,747	308,029	3,063,463
Sale of commercial and other stamps.	443,663	175,592	133,930	43,892	9,533	52,026	23,924	23,302	265,313	197,218	1,368,399
Fines and miscellaneous	4,153	1,890	4,724	2,015	786	553	568	535	8,183	54,082	77,489
TOTAL Stamp Revenue of 1893–94 Rx.	1,597,671	724,973	413,377	126,120	29,974	175,214	84,717	54,733	743,243	559,329	4,509,351
TOTAL of 1892–93 Rx.	1,554,584	715,256	410,385	155,489	—	169,031	81,526	50,704	736,449	573,116	4,448,540

The

STAMPS.

The refunds of the year were Rx. 52,446, and the charges of collection came to Rx. 156,562. There was an increase in revenue of 1½ per cent., as compared with an increase of 4½ and 5 per cent. in the two previous years, for the whole of India. Court fees still yield slightly more than two-thirds of the whole stamp revenue, and general stamps yield something under one-third. The increase in the year 1893-94 accrued exclusively under court-fee stamps. The only notable increase was in Bengal. In Bombay there was a decrease of Rx. 14,000 compared with the previous year, during which there had been, among other windfalls, a sum of Rx. 12,600 paid as probate duty on the estate of a Parsee citizen.

CUSTOMS.

CUSTOMS.

In consequence of the great fall in the gold value of silver, and the resulting increase in the loss by exchange on remittances to meet Indian expenditure in England, it has been found necessary to re-impose import duties, which had been abolished in 1882. On the 10th March 1894, the new Indian Tariff Act (VIII. of 1894) was passed, whereby import duties at the rate of 1 per cent. were imposed on iron and steel, and at the rate of 5 per cent. *ad valorem* on all other goods except salt, petroleum, liquors, arms and ammunition, gold bullion and cotton goods. The existing rates of duty on salt, liquors, and arms, &c., were retained; the rate of duty on petroleum was raised from half an anna to one anna per gallon; no duty was placed upon cotton goods or cotton yarns; and gold bullion remained free, while a 5 per cent. duty was imposed upon silver bullion and on any other silver except current coin of the Government of India, which remained free. It was estimated that these duties would yield a net increase of revenue in the first year of

Rx.	
1,020,000	from general import duties,
180,000	from petroleum,
1,200,000	total in the first year; and of
1,350,000	in subsequent years.

About Rx. 185,000 were realised under the new tariff during the last two weeks of March 1894; and, so far as statistics are available for the year 1894-95, the new tariff has yielded during the nine months, April to December 1894, a total revenue of Rx. 1,191,000, of which Rx. 254,000 were duties paid upon silver bullion imported into India.

The Customs receipts of the year 1893-94 compare with those for the previous year, thus:—

Gross Customs Receipts.

		Rx.	Rx.
Export Duty:			
On rice	1892-93		743,000
	1893-94		660,000
Import Duties:			
On Liquors	1892-93	610,000	
	1893-94	596,000	
On arms and ammunition	1892-93	31,000	
	1893-94	35,000	
On petroleum	1892-93	202,000	
	1893-94	263,000	
Under the new general tariff	1892-93	—	
	1893-94	185,000	
TOTAL import duties	1892-93		843,000
	1893-94		1,079,000
GRAND TOTAL of Customs revenue	1892-93		1,586,000
	1893-94		1,739,000

PROVINCIAL RATES.

Provincial rates are levied for the most part on the land. They are imposed to meet charges for local roads, local schools, local sanitary work, local postal arrangements, and in some provinces for village police. In the temporarily settled provinces the rates take the form of a percentage on the land revenue, and the revenue payers and tenants have to pay that percentage in addition to the land revenue. In Bengal the cesses are levied by a rate upon the rental, and are payable partly by landlord and partly by tenant. The net receipts under this head were Rx. 3,503,000 in the year 1893-94, as against Rx. 3,699,000 in the preceding year; nearly one-half of the whole pertains to the provinces of Bengal and Madras. In the latter province the system of local funds and local administration has been carried out successfully for many years. In Bengal about half of the rates belongs to the Provincial Government; in the North-Western Provinces nearly one-quarter is similarly credited; in other provinces the whole, or almost the whole, of the provincial rates income is spent on local objects by local bodies. The provincial rates increase with the land revenue, and in Bengal the road cess may be increased by votes of the district boards within the legal maximum, or by alteration in the periodical valuations of the rental. The provincial rates are collected punctually with the land revenue and by the same agency. PROVINCIAL RATES.

The following is a table of the rates and cesses collected during the year:—

	India General.	Bengal.	Assam.	North-Western Provinces and Oudh.	Punjab.	Central Provinces.	Burma (Lower).	Madras.	Bombay.	TOTAL.
REVENUE.										
District Local Fund:—	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Cess on Land for expenditure on Roads, Schools, Hospitals, and general purposes.	2,471	408,313	61,121	457,134	216,990	32,327	101,044	524,825	276,418	2,080,643
Provincial:										
Cess on Land for expenditure on Roads, Schools, &c.	—	413,431	—	33,598	—	348	—	—	—	447,377
Cess on Land for Famine Assurance, Canals, and Railways.	—	—	—	171,057	57,521	14,963	—	—	—	243,541
Cess on Land for District Post	—	43,322	—	3,733	13,646	3,883	—	—	—	64,584
Cess on Land for Village Service and Patwaries.	4,036	—	—	237,252	133,348	45,207	—	148,031	41,012	608,886
Assessment on Wards' Estates for Establishment Charges.	—	13,155	—	—	1,836	2,476	—	—	—	17,467
Miscellaneous	4,544	—	—	41,649	555	—	—	5,325	—	52,073
TOTAL Receipts	11,051	878,221	61,121	944,423	423,896	99,204	101,044	678,181	317,430	3,514,571
Refunds	4	915	91	866	133	103	48	8,507	800	11,467
Net Receipts, 1893-94	11,047	877,306	61,030	943,557	423,763	99,101	100,996	669,674	316,630	3,503,104
Net Receipts, 1892-93	7,422	878,981	54,933	937,138	408,472	99,449	102,036	909,912	309,300	3,698,694

INCOME TAX.

There was no change in the Income Tax Law (Act II. of 1886) during the year or in the rate at which the tax was levied. The principal provisions of the Act are that incomes derived from salaries, pensions, and interest on securities, if amounting to Rs. 2,000 per annum, should pay five pie in the rupee (2·6 per cent.), and if less than Rs. 2,000, four pie in the rupee (about 2 per cent.); that companies should pay five pie in the rupee on their net profits; and that income derived from other sources should pay according to a graded scale from Rs. 10 on Rs. 500 to Rs. 42 on Rs. 1,999, the tax on incomes of Rs. 2,000 and upwards being five pie in the rupee. All incomes of less than Rs. 500 a year are exempted, and the tax is not levied on profits or incomes derived from agriculture (which are otherwise taxed under legislation imposed in 1877-78), or on military salaries of less than Rs. 500 a month. INCOME TAX. General.

The

INCOME TAX.

The receipts and charges on account of income tax in each province were as follows :—

	Gross Collections.	Refunds.	Net Receipts.	Charges for Assessment and Collection.
	Rx.	Rx.	Rx.	Rx.
Bengal	442,320	2,817	439,503	17,879
North-Western Provinces and Oudh	238,782	2,029	236,753	2,098
Punjab	140,696	1,023	139,673	1,131
Burma	83,808	799	83,009	2,105
Central Provinces	49,727	516	49,211	—
Assam	27,183	61	27,122	112
India, General	148,272	10,120	138,152	375
Madras	225,171	1,894	223,277	2,051
Bombay	383,212	2,285	380,927	5,309
TOTAL, 1893-94	1,739,171	21,544	1,717,627	31,060
TOTAL, 1892-93	1,677,487	15,615	1,661,872	30,171

The amount of income tax realised under the main sub-heads for all India was :—

	Rx.
Ordinary collections, being assessments on trading and professional incomes, profits of companies, and on salaries not paid by Government.	1,261,346
Tax on salaries and pensions paid by Government	354,229
Tax on the interest of Government securities	80,909
Tax on profits of railway companies	27,809
Miscellaneous assessments and items	14,878
Rx.	1,739,171

About three-fifths of the whole income tax revenue is paid by the provinces of Bengal and Bombay. A very large share is in each case contributed by the presidency town; Calcutta yielded not much less than one-half of the whole income tax (Rx. 177,000 out of a total of Rx. 370,000 assessed under Parts I., II. and IV.) levied in Bengal, though it contains less than 1 per cent. of the population of the province; and Bombay city, with a population of 800,000, paid Rx. 181,600 of income tax on trades and professions, as compared with Rx. 136,000 on trades and professions paid by the rest of the presidency, with a population of 18 millions, and as compared with Rx. 54,000 paid on Government salaries and interest on Government securities.

Provincial details.

In Bengal the number of objections against 107,741 assessments was 12,269, as compared with 11,640 and 12,388 in the two previous years; about 37 per cent. of the objectors were more or less successful, as against 36 per cent. in the previous year; and the final demand was 4 per cent. below the original assessments. The total receipts in Bengal showed an increase of Rx. 12,309, or 3 per cent., as compared with 1892–93.

The amounts realisable under the several schedules out of the demand for 1893–94 were :—

	Rx.
I. Salaries and pensions	98,433
II. Profits of companies	25,295
III. Interest on securities	6,000
IV. Trades, professions, &c.	365,385

The proportion of persons assessed to the total population of Bengal was 1 to 674, and the incidence of the tax was one rupee to every 18 persons; outside the city of Calcutta the incidence was one rupee to every 36 persons of the total population. INCOME TAX.

In the North-Western Provinces and Oudh, out of 70,315 assessments the number of objections was 20,385; 29 per cent. of the objectors were in some degree successful, the proportion in the previous year having been 31; and the final demand was 5 per cent. below the original assessment, as in the two preceding years. Notices of arrear were issued in 4,115 cases, and in 610 cases further coercive measures had to be taken against defaulters; in 148 cases attached property had to be sold for arrears; in all three cases the numbers were considerably lower than in the previous year. The total receipts, Rx. 232,025, showed an increase of 3 per cent. over the previous year. The number of persons assessed was $1\frac{1}{2}$ per mille of the whole population. Of the whole tax 76 per cent. was paid by trades and professions.

In the Punjab the number of objections against 43,182 assessments under Part IV. was 11,181, of which 32 per cent. were successful, being a slightly smaller proportion as in the previous year; and the final demand was $4\frac{3}{4}$ per cent. below the original assessment, as compared with $5\frac{1}{3}$ per cent. in 1892-93. Rx. 552 of the year's demand were uncollected at the end of March. The total receipts in the Punjab showed an increase of 3 per cent. on the receipts of the previous year, the increase being mainly under Part IV., namely, assessments on trading and professional incomes. More than 18 per cent. of the whole collections accrued on salaries and pensions. The penalties imposed for delays by income taxpayers came to Rx. 211 against Rx. 87 in the previous year.

In Burma the income tax was applied to all Government servants and to 88 towns in the lower province; income taxpayers were exempted from capitation tax. In the year 1893-94 the number of objections preferred against 11,679 assessments under Part IV. was 3,721, of which 42 per cent. were more or less successful; and the final demand was 7 per cent. below the total of the original assessments. In 1,669 cases warrants were issued against defaulters, as compared with 853 in 1892-93. Of the whole income tax revenue in Burma in 1893-94, 54 per cent. was paid on salaries, pensions, securities, and profits of companies. The most notable features of the year's administration of income tax in Burma were the large fall in incomes at Rangoon and the great increase in the punctuality of collections. The total receipts of the year 1893-94 were Rx. 7,800, or 11 per cent. larger than in the previous year.

In Assam the yield of the tax was 15 per cent. more than in the previous year. The number of objections was 1,247, against 5,363 assessments under Part IV.; 558 objections were successful in whole or in part; and the final demand under Part IV. was 6 per cent. below the original assessment. Processes for the realisation of arrears decreased 12 per cent.; and in only 12 cases was the property of defaulters sold for arrears, against 10 in the previous year. The proportion of collections on salaries and pensions under Part I. paid by Government and local authorities was 17 per cent.; on salaries paid by companies under Part II. it was 41 per cent.; and on trades and professions under Part IV. it was 38 per cent.

The total number of persons finally assessed to income tax was 71,025, as compared with 64,961 in the previous year. Against 60,065 assessments in Madras, under Part IV., 24,724 objections were preferred. In 33,856 cases notices had to be issued against defaulters, but in only 184 cases was any property sold or further action taken on account of arrears. Five per cent. of the revenue due remained unrealised when the report for the year was submitted. The demand for the year showed an increase of 9 per cent. over that for 1892-93; nearly the whole of the increase accrued under Part IV. (Trade and Professions) of the Act; 72 per cent. of the total demand came under that part, and 23 per cent. of tax was paid on salaries. The assessments fell at the rate of one in 488 on the whole population, and at $28\frac{3}{4}$ rupees on each taxpayer.

More than half the income tax demand of the Bombay Presidency accrued in the city of Bombay, where the average incidence on each taxpayer was 71 rupees, against an average of less than 30 rupees in the interior. In the districts outside Bombay the number of persons originally assessed to income tax

INCOME TAX.

tax was 56,257, of whom 14,362 preferred objections against the assessments; from 4 to 5 per cent. of the objectors obtained reduction or remission from the original assessment. The final demand for the whole presidency was Rx. 387,000 against original assessments amounting to Rx. 401,000. The share of the final demand assessed upon salaries, pensions, and securities was Rx. 54,100, or 14 per cent. of the whole. The total collections, including arrears and penalties, were Rx. 371,000, against Rx. 378,000 in the preceding year. The decrease occurred entirely in Bombay city, where, owing to the depression of trade, the income tax collections were Rx. 10,900 (nearly 6 per cent.) below the receipts of 1892–93. In the greater part of the Presidency the income tax collections were higher than in the preceding year, in consequence of the favourable harvest; but the increase in the country districts did not make up for the loss in Bombay city, where, apart from the tax on salaries and securities, the income tax collections were Rx. 182,000, as compared with Rx. 136,000 in the districts of Bombay and Sind outside the presidency town.

CHAPTER VI.

SURVEYS AND SETTLEMENTS.

Surveys.

The work of "The Survey of India" is divided under five heads namely:—

1. Trigonometrical Survey.
2. Topographical Forest Survey.
3. Cadastral Survey.
4. Special Surveys and Explorations.
5. Map Production.

The account given below of progress under heads one, two, four and five relates to the work of the season 1892–93.

Trigonometrical.

Out of 21 survey parties, and four small survey detachments, employed during the year, only one party was engaged on trigonometrical work. Triangulation was effected in Upper Burma for a distance of 250 miles and over an area of 4,460 square miles; the elements were computed for seven principal stations, and for 15 in the secondary series. The principal triangulation was carried from Mandalay through the Shwebo and Ruby Mines districts. The secondary series went from Fort Stedman near the western edge of the Shan plateau through the Shan States to the Mekong river.

Topographical.

Three parties, and two detachments, were engaged on topographical work, and accomplished in all 10,215 square miles of topographical survey, as against 9,909 in the preceding year. Party No. 10 completed 2,778 square miles of survey in the southern Mahratta country and the Konkan; the country was open, except on and near the Ghat mountains, where the forest was sometimes heavy. Party No. 15 was divided into five sections, of which one carried a reconnaissance into the Helmund desert and Sistan, another conducted surveys along the Persian coast, a third conducted triangulation in the Zhob valley, a fourth prosecuted special surveys near Quetta and in the lower Bela district, and a fifth section was employed on the topography of the country belonging to the Gilgit agency. The total out-turn by the party was 44,375 square miles of triangulation, 56,420 square miles of geographical survey, and 8,324 square miles of topographical work. A detachment effected 679 square miles of topographical survey in the tin-bearing lands of Maliwoon, and near the coal field on the banks of the Tenasserim, in the Mergui district. The work was much impeded by the climate and the forest. A topographical survey was begun of the Indus channel, where great changes had taken place since the original survey in 1856 to 1870; an area of 1,114 square miles was accomplished. Party No. 18 surveyed 548 square miles in the Kangra district, including the Kulu sub-division and the Mandi chiefship. This area included 267 separate forest blocks aggregating 101 square miles.

Four parties were, as in the previous year, employed in mapping the forest reserves. Party No. 14 carried on surveys in the Nimar forests of the Central Provinces; they completed 627 square miles of detail survey, including classification of soils and forest growth. Party No. 17 was engaged in the reserved forests of the Poona, Thana, Sholapur, Kolaba, and North Kanara districts of Bombay; 426 square miles of detail survey, besides 995 square miles of triangulation, were accomplished. Party No. 19 was engaged in the forest reserves of Coimbatore, Madura, Salem, and North Arcot; 788 square miles of detailed survey were accomplished, a larger out-turn than in any previous year; the cost per square mile came down to 78 rupees, against 97 rupees, and 172 rupees in previous years. Party No. 20 effected the survey of 232 square miles of reserved forest and 112 miles of unreserved forest in the Toungoo district of Burma. The whole area of forest surveys accomplished by all these parties during the year was 2,170 square miles, against 2,245 square miles in the previous year.

Cadastral Survey.

The work of the cadastral and traverse survey parties is noticed below under each of the provinces where they were employed.

Geodetic.

The geodetic work of the year consisted of the astronomical observation of latitudes northwards at eight stations along the meridian of 72° 30′, between

Surveys. the parallel of 23° and 27° 30′ north latitude, and in the south at seven stations along the parallel of 18° between the meridians of 73° and 78°.

Map printing. The demand for and the production of maps by the Survey of India continues steadily to increase. The number of new maps published during the year was 5,645, of which 5,425 were cadastral maps. In all 1,026,682 copies of maps and plates of different kinds were printed off during the year, besides 1,418,607 impressions from type, 61,082 heliogravure prints, and 1,269 photographic prints; the total value of the work was Rx. 24,900, or Rx. 3,800 above the previous year. Among notable new maps of the year were several charts of Upper Burma and of Indo-China, and nine statistical maps for the Imperial Institute and for the Antwerp Exhibition.

Tidal and levelling operations. The recording of tidal curves by self-registering tide gauges, their reduction, and the publication of tide tables were continued during the year at 14 stations, of which six are permanent and eight are temporary for five years. One old station was closed, the five years' observations having been completed, and two new ones, Muscat and Bushire, were opened during the year. No serious interruption occurred at any of the tidal observatories, though many alterations and repairs had to be effected. The total number of ports treated since 1877, for which tide tables are issued, is 33. So far as predictions of high water were concerned, 96 per cent. of the entries in the tables were correct within eight inches of actual heights at open coast stations, and 64 per cent. at riverain stations; while as to time of high water, 77 and 66 per cent. respectively of the entries were correct within 15 minutes. All the observatories were inspected during the year, and steps were taken to correct shortcomings or deficiencies detected.

The levelling operations of the season consisted of a continuous line of double levelling from the sea to Rangoon, and northwards to Mandalay along the railway. On a length of 464 miles the heights of one standard bench mark, of 431 permanent bench marks, of 60 other bench marks, and of six stations of the Great Trigonometrical Survey, were determined. It appears that the bench marks towards Mandalay were mostly about 10 feet below the actual heights as now determined, while the heights fixed by the Great Trigonometrical Survey for six of their stations were from 4 to 10 feet above the heights as now ascertained.

Explorations. Parties Nos. 11 and 21 continued their geographical surveys in Upper Burma. Party No. 11 accompanied the Burma and Siam Boundary Commission, and mapped an area of 6,018 square miles in the State of Kentung and in Siamese territory, besides executing a considerable area of triangulation. Party No. 21 effected the topographical survey of 17,982 square miles in the Northern Shan States and the Upper Burma districts of Katha, Bhamo, and the Upper Chindwin. This party also repressed a rising of the Kachins, which threatened to stop their work.

Marine Survey. The survey vessel "Investigator" with one boat party was employed on marine surveys throughout the open season of 1893–94, the staff being employed in the chart office during the rainy months. The principal coast survey work was off the Laccadive and Minikoi Islands, in the Bassein creek of the Thana district, near Bombay harbour, in the Palk Strait, and on the east coast near Madras. It was ascertained that a reef, reported by a ship's captain about 25 miles north-east of Minikoi did not exist; and the depth of the channel between the Maldive Islands and Minikoi was satisfactorily proved. The position of the Suheli-Par reef, on the extreme south of the Laccadive Islands and nearest to the track of ships, was accurately fixed. The naturalist on board the "Investigator" reports on 37 hauls of the deep-sea trawl, the deepest haul being 719 fathoms; he investigated with a dredge the inhabitants of the lagoons inside the north-east Maldive atoll, and he examined the creatures of the shallows in Palk Strait. Many interesting specimens were brought up by the trawl, some of which were new to science, and others are now found for the first time in the Indian seas.

Meteorology. During the year 1893–94 meteorological observations were recorded at 211 stations, stretching from Bagdad and Aden on the west, to Dibrogarh and Bhamo, on the east, and from Kabul and Kashgar on the north, to Galle in Ceylon, the Nicobar and Minikoi Islands, and Mergui on the south. Of these 177 were maintained by the Government of India, subject to the immediate control of the meteorological officers. The principal new observatories of the year

year were at Kabul and Kashgar, on the Seychelles islands, and in Sikkim. The new information obtained this year from Teheran, Yarkand, and Kabul, has been specially interesting. Full information was obtained from 26 Himalayan and sub-Himalayan stations concerning the snowfall of the year, and a forecast was published in June of the probable effect of the snowfall on the ensuing south-west monsoon. It is established that the ordinary snowfall at elevations 12,000 to 15,000 feet above the sea is 40 feet, and that in exceptional years there are 60 or even 80 feet of snowfall. Of the 177 observing stations,— SURVEYS.

Four were observatories of the first class, where autographically registering instruments are kept to record rainfall, barometric and thermometric readings, humidity, wind force, and solar-actinometric observations.

Sixty-three were second-class stations, where less frequent observations are recorded.

One hundred and ten were third-class stations, which record twice a day the rainfall, the thermometric maxima and minima, and the range of the barometer.

These observations are communicated in some cases by telegraph to the head-quarters of the Meteorological Department, the chief officers of which are responsible for inspecting observatories and stations, so that instruments may be kept in good order and observations may be faithfully recorded; the Department also undertakes the publication of storm warnings, seasonal forecasts, and periodical compilations of meteorological results. Besides the data furnished by the observatories described above, returns are kept of the rainfall at 2,165 stations.

The forecast of the probable rainfall for the monsoon of 1893 was founded mainly on information regarding the snowfall on the mountain region to the north and north-west of India, and on the distribution of barometric pressure in India and over the Arabian Sea during the month of May, as compared with the meteorology of previous years. The forecast predicted an early monsoon in Bombay, a strong monsoon in Bengal, normal rainfall in the central and southern regions of India, and a slightly defective rainfall in the Punjab, in Rajputana, in the western districts of the North-West Provinces, in Burma, and in Assam. The season of 1893 is said to have been one of the most abnormal during the last 20 years; and it is claimed that the actual rainfall showed a fair agreement with the forecast, excepting in the Punjab and on the west coast. The average and actual rainfall from June to October in the regions into which India has been divided were as follows:—

Name of Province or Tract.	Actual Rainfall of June to October 1893.	Normal Average Rainfall for the Five Months.
	Inches.	*Inches.*
Burma	113	119
Assam and Bengal	65	57
North-Western Provinces and Oudh	42	34
Punjab (plains)	20	15
Rajputana and Central India	29	27
Central Provinces and Berar	44	44
Madras	31	27
Bombay (North)	27	26
Bombay and Malabar Coast Districts	50	51

The rainfall of the year 1893 was abnormal; the months of January and February were unusually, and the rainfall of the period in Northern and Central India was largely, above the average; cold weather conditions continued during

Surveys.

during March, and the district of Chanda in the Central Provinces received 11·7 inches during that month, the normal rainfall being only 0·57 inches. Snow fell in the hills down to an unusually low level. Temperature below normal ruled throughout the hot weather months. A severe cyclonic storm visited the Bay of Bengal in May, causing 40 inches of rain to be recorded at False Point in Orissa. The Bombay monsoon set in during the first week of June and the Bengal monsoon was established before the end of the second week. The rains were steady and heavier than usual over Northern and Central India; but were irregular, though heavy in Bengal. In Burma and in the west coast districts the rainfall was slightly below normal; but it was heavy in Madras and on the east coast. The rains ended slightly earlier than usual in Northern India, but continued till the end of October in Bengal and Burma. The north-east monsoon gave abundant rain to the east coast districts of Madras. A severe storm gave heavy rain over Rajputana and the Punjab on the 30th and 31st of December 1893. Out of 27 meteorological districts into which India has been divided, three only returned rainfall less than normal; in the Punjab, Rajputana, North-Western India, and the Hyderabad Deccan the rainfall averaged 40 per cent. above the normal rate of previous years.

The year was on the whole stormy; a very severe storm occurred towards the end of May in front of an advance of the south-west monsoon winds. This was the worst storm that has visited the head of the bay for 20 years. Three lesser cyclones and six notable storms were also observed. These cyclones and storms, nearly all of them, brought heavy rain to Bengal. Storm signalling was effectively performed at Bombay and Calcutta; warning is said to have been given of all considerable storms that visited India or Burma during the year. The system of flood warnings to canal officers continued to be useful; 341 such warnings were issued by the Meteorological Department during the year. The usual daily weather reports and charts, weekly weather reports published in the official gazettes, and the monthly weather report giving a summary of the weather and the variations from normal conditions, were published regularly; a daily weather report was published at Madras for the first time.

The proportion of stations inspected and instruments verified by officers of the Meteorological Department was smaller than in the preceding year. Twenty-eight observatories were found to be "satisfactory" or "very satisfactory"; 17 were said to be "fair"; and 7 were in bad condition.

Geological Survey.

The operations of the Geological Survey during the year 1894 were partly scientific and partly economic. In the Rewa State and in the Bhandara district of the Central Provinces detailed examination of the rocks was prosecuted. In the Salem district of Madras investigation was made into the mineral resources and petrology with special reference to the occurrence of corundum. Fossils were collected from the cretaceous rocks of Pondicherry. The diagnosis by the survey of the geological causes of the great Gohua landslip in the upper Ganges valley, and the prognosis of the behaviour of the lake that formed behind the débris, proved remarkably correct. The geology of the salt range near the Dandot coal mine was examined and described in much detail. A boring at Sukkur, to test for petroleum, was carried down 957 feet, with as yet negative results. The geological survey of Biluchistan was prosecuted, fossils were collected, and the geological mapping of 5,990 square miles was completed; the results, though interesting scientifically, were not of economic importance, except as regards the Quetta coal area, concerning which a full report was prepared. Further investigation of the Warova coal area in the Central Provinces was made, and the results were published. The examination of the Yenangyoung oil field in Upper Burma was carried on. An officer of the Survey was deputed to report upon the supposed metalliferous belt of rocks in Chotia Nagpur. Reports and assays were made on specimens of iron ore, manganese, traces of copper, and veins of argentiferous galena.

The volume illustrative of the palæontology of the salt range has been completed, and the volume dealing with Himalayan fossils has been begun. Memoirs on the geology of the Bellarg district, Madras, are being published. The collection of minerals in the Museum has been re-arranged and labelled according to the more modern classification; and an interesting comparison has been drawn of the peridotites of the Gondwana series in the Bengal coalfields with the peridotites in carbonaceous of about the same age in South Africa.

SETTLEMENTS AND CADASTRAL SURVEYS.

General.

The term "Settlement" is applied in Indian revenue affairs to the process of assessing the land revenue demand. Occasionally in newly acquired or specially backward tracts, the land revenue is assessed for a short term of years on a general review of the circumstances and capabilities of the land and people concerned; such a process is called a summary settlement. But a regular settlement is a more complicated affair, and consists of many stages. In the first place, every separate estate or holding is demarcated by permanent marks on the ground; and disputes between neighbouring right-holders are investigated and decided. Every estate or holding is then surveyed and mapped, all boundary marks, wells, and buildings being shown on the field or cadastral maps. Sometimes these field surveys and maps are made by trained professional surveyors belonging to the Survey department. When the field surveys are made by local or village surveyors, such agents are trained by, and their work is independently tested by, professional surveyors. The work of the professional survey, whether cadastral maps or traversing, rests on, and is checked by, the independent scientific work of the Grand Trigonometrical and Topographical Surveys. After the field maps are prepared, the next process is to classify or record each field according to its productive value, as evidenced by its soil, by the amount of its produce, or by the rent it pays. A record is at the same time drawn up of all rents paid, and of all rights, whether landlord rights, or tenant rights, or rights of user, over all the ground, buildings, wells, and trees shown in the map. Then the assessing officer (or settlement officer, as he is often called) compiles the information obtained for all the lands in a circle of villages; and on a review of all these data, of the past fiscal history of the tract, of the range of prices, of the accessibility of markets, and of other general considerations, he proposes rent rates or revenue rates for the several classes of lands in the circle. In the determination of rent rates or revenue rates for any tract, the rainfall, the sub-soil water level, and irrigation facilities are important factors; but improvements made by the owners or occupiers themselves, are not held to enhance the assessable value of the land. In resettlements in the North-West Provinces and Oudh, the rents now enjoyed by the owner of the land are practically the main basis on which the new land revenue is assessed. The rent rates or revenue rates proposed by the settlement officer, and the grounds on which they were based, are then investigated by a superior officer, and are not adopted until they have been accepted or modified by him.

In provinces where the zemindari tenure prevails, that is, where single proprietors or proprietary brotherhoods possess large estates of several hundreds or thousands of acres, the State revenue is assessed at an aliquot part (usually about one-half) of the ascertained or assumed rental. The revenue, though it is fixed with reference to acreage rates on the land actually cultivated, is assessed on, and is payable by, each estate as a whole; the assessment remains unchanged for the 30 years or other period of the settlement; the proprietor can bring as much as he likes of his waste or fallow land under the plough; and it is only on re-assessment at the end of the term of the settlement that the State obtains any increase of revenue on account of the extensions of cultivation during the settlement period. In provinces where the ryotwari tenure prevails, that is, where each petty proprietor holds directly from the State, generally cultivates his own land, and has no landlord between himself and the Government, the revenue is separately assessed at an acreage rate on each petty holding, and land revenue becomes payable at once, or after a short term of grace in the case of uncleared lands, on all extensions of cultivation. The ryotwari proprietor is at liberty to throw up his holding, or any portion of it, at the beginning of any year after reasonable notice; the zemindar or large proprietor engages to pay the revenue assessed upon him for the term of the settlement.

After the revenue is assessed and the assessment is sanctioned, copies of the field map, of the schedule of fields, and of the record of rights are made; one copy is given to the proprietor; one copy is lodged in the district court-

SETTLEMENTS AND CADASTRAL SURVEYS.

house; and usually a third copy is placed in the sub-divisional or tahseel office. Through the agency of the local officials of each village or circle the field maps and record of rights are corrected or written up year by year, so as to make them at all times faithful accounts of current rural facts and circumstances. When revisions of assessment are undertaken at the end of the settlement, the village maps and records serve, after adequate testings and corrections, as the basis for re-assessment; and in this way a re-settlement is a shorter and less costly affair, and causes much less harassment to the people than is involved in an original settlement. At the present time re-settlements have been practically completed in Bombay, and are being made in districts of Madras, the Punjab, the North-Western Provinces, and the Central Provinces; also in parts of Bengal and Assam. Original settlements are still being prosecuted on the west coast of Madras and in Lower Burma. Re-settlement is beginning in Berar; while in Upper Burma the first settlement of the land revenue has been begun.

Bengal.

The Bengal report brings the account of survey and settlement affairs down to September 1893; cadastral surveys and settlements were in progress in the three districts of Orissa, in Chittagong, in the Dooars, and on some hundreds of petty estates and plots in different parts of the province; while a cadastral survey and record of rights was begun in three districts of North Behar, namely, Mozufferpore, Sarun, and Champaran. In the temporarily settled districts cadastral surveys were effected over 1,875 square miles, at a cost of Rx. 17 per square mile. Field maps and records were completed for the Puri district, and are making progress in Cuttack and Balasore; the total area as yet cadastrally surveyed in Orissa was 4,333 square miles, and the attestation of holdings had been completed over 2,859 square miles; no revised assessments had been framed by the end of the year. The total cost of the Orissa survey and settlement had reached Rx. 125,000 by the 30th September 1893. The work done in the Chittagong Settlement consisted of 178 square miles of cadastral survey and the attestation of 839,738 holdings. No revised assessments were made during the year. Three quarters of the survey and of the attestation work has been completed; and the cost of the Chittagong Settlement up to date has been Rx. 90,682. In the Western Duars the settlement work was nearly finished, and was to be quite closed by March 1894; the cost was Rx. 51,196 up to the end of September 1893; the increase of revenue gained has been Rx. 12,600 a year, due in great part to the extensions of cultivation; the revenue collections at the new rates have been satisfactory, and afford evidence that the new assessments have not been severe. On minor Government estates 70 square miles were cadastrally surveyed at a cost of from 3½ annas to 4 annas an acre. In Backergunge, 83 square miles, previously surveyed, were assessed, with the result of securing Rx. 5,107 of additional revenue; the whole cost of the survey and settlement on this area is quoted at Rx. 4,800, or 14½ annas per acre. On the estates of the Maharaja of Hill Tipperah, an area of 289 square miles was cadastrally surveyed at a cost of 8 annas per acre; and on several other estates belonging to minors or other private owners, cadastral surveys were pushed on.

In North Behar, cadastral surveys began in parts of the Mozufferpore, Champaran and Sarun Districts. For 1,397 villages, aggregating 945 square miles, the survey was completed, and for 786 square miles the records were written up. The cost of the survey, record writing, attestation of rents, and settlement disputes is returned at 6½ annas per acre in Mozufferpore, and at 4¾ annas per acre in Champaran. Rent questions appear to have been for the most part settled amicably; in Mozufferpore almost all the 713 protesting ryots agreed to a small increase, averaging 7½ per cent., of their rents, on the ground that they had taken up new lands in excess of their leases, and many of the 1,385 protesting ryots in Champaran accepted increases of rent averaging 3 per cent. on similar grounds. It is reported that "the attitude of the people generally in North Behar" towards the cadastral survey has been "at least as favourable as could have been expected"; that "much interest has been shown by the ryots in obtaining extracts from the rent-rolls and in ascertaining that their rights were correctly recorded"; also that the supervising authorities were "much struck by the patient attendance of landlords and tenants during the record writing and attestation proceedings." The attempt to conduct the operations partly through the old village officials (patwaris) was foregone,

partly

partly in deference to local sentiment, and partly because recruits from this source worked badly. But it was felt to be a drawback that the cadastral staff is manned from Northern India and not from Behar. SETTLEMENTS AND CADASTRAL SURVEYS.

Revisions of settlement were in progress over parts of two districts in the North-West Provinces and six districts of Oudh Except in Garhwal, Unao, and Pertabgarh, operations had not reached the assessment stage. In Unao the increase in revenue had so far been Rx. 50,000, 18½ per cent.; and in Pertabgarh Rx. 15,200, or 40 per cent. The cost of the settlements had not been high anywhere except in Garhwal, where Rx. 34,000 had been spent in surveying and assessing hill tracts yielding a revenue of Rx. 9,600, with an increase of only Rx. 1,000 to the demand. At the end of the year revision of settlement was begun in five other districts; and a new procedure was introduced into the Oudh Settlements, whereby the work was made simpler, less costly, more expeditious, and less harassing to the people. North-Western Provinces and Oudh.

The rent-rolls for all districts of the North-West Provinces and Oudh show that the rental demand of the year 1891–92 was Rx. 12,098,000, out of which the landlords realised Rx. 9,820,000 during the year, besides Rx. 1,237,000 on account of arrears of previous years. The rent-rolls include only the reduced rents paid by privileged tenants, and include no computed rents on account of lands cultivated by proprietors. The cultivated area is approximately held thus :—

	N.W.P.	Oudh.
	Acres.	*Acres.*
By cultivating proprietors	6,048,000	956,000
„ privileged tenants	899,000	394,000
„ ryots with occupancy rights	10,680,000	256,000
„ tenants at will	9,000,000	7,419,000
„ rent free	451,000	285,000

No part of the imperial Survey Department was employed on revenue or cadastral survey in the Punjab during the year. In three districts, Kangra, Amritsar and Gujerat, settlement work was completed during the year; and settlements were in progress in parts of seven other districts at the close of the year. As was mentioned in a previous Statement, the work is being done as expeditiously and economically as possible; and no general re-survey is attempted, though on some estates and on occasional tracts the existing field maps are so incorrect as to necessitate a fresh survey. Punjab.

In Kangra the settlement was practically completed; it has cost Rx. 30,300; and it has yielded an increase of Rx. 10,300 in the revenue, or 17 per cent., against a forecast of Rx. 10,000. In Amritsar the settlement has been finished; it cost Rx. 32,000; and an enhancement of Rx. 22,400 was secured in the revenue. In Lahore the re-assessment has been sanctioned, with the result of adding Rs. 25,000 to the revenue; but the work had not been finally wound up. In Montgomery and Guzeranwala half the re-survey has been done, and assessments were being framed. In Guzeranwala two-thirds of the district have been re-assessed, whereby Rx. 11,000, or 25 per cent., have been added to the revenue. In Guzerat the settlement has been finished; it has cost Rx. 25,000; it has added nearly Rx. 20,000 to the revenue, and it is reported that "the new assessments are giving satisfaction," the revenue "being realised with ease." In Sealkot the settlement has occupied 5½ years and has cost more than Rx. 30,000; revised assessments have been sanctioned for three-fifths, and have been framed for the rest of the district. The fiscal results of the Shahpur settlement were noticed in last year's Statement; the work has now been wound up; and notwithstanding a disastrous flood from the Jhelum River, in June 1893, the prosperity of the district continued up to the beginning of 1894. In Peshawur field-surveys were in progress.

In Lower Burma one party of the Imperial Survey was employed on the cadastral survey of the Amherst and other Tenasserim districts; this party effected Burma.

SETTLEMENTS AND CADASTRAL SURVEYS.

effected 850 square miles of cadastral work, or 46 square miles less than in the preceding year. A detachment was engaged on the large scale survey of 28 tin mines in the district of Mergui. The forest survey party completed 232 square miles of difficult country in the reserved forests of Toungoo. No land revenue settlement work was successfully accomplished in the lower province during the year. The 20 survey schools have worked successfully. The average number of students on the rolls was 347. Of these, 212 will in future be scholarship-holders. The course includes active work with a surveyor in the field. The number of students obtaining certificates during the year was 204; and 99 certificated students obtained employment under Government. The area under supplementary survey, that is the area for which the field maps and records are tested and corrected yearly, increased from 16,820 to 18,503 square miles, or 79 per cent. of the whole cultivated area of Lower Burma, and the cost of the work was Rx. 15,500. The area transferred by private sale was 281,000 acres, against 280,000 in the previous year. Notwithstanding the great fall in the price of rice, the average price paid for land increased somewhat, or remained stationary in nearly every district. The area sub-let to tenants was 970,000 acres, or 16 per cent. of the whole cultivated area; the rent realised per acre came to an average of 5·5 rupees, as compared with an average revenue rate of $1\frac{1}{4}$ rupees per acre.

Two cadastral survey parties in Upper Burma effected the survey of 3,379 square miles in parts of 10 districts. The proportion of cultivation to total area ranged from 80 to 47 per cent. No fresh assessments of land revenue were reported.

Central Provinces.

In the Central Provinces cadastral survey has now been completed everywhere except in the Chanda district and some of the zemindarees or chiefships. Assessments and the completion of the record of rights were in progress in parts of 12 districts and in the chiefships of Chutteesgurh. In the districts of Damoh and Jubbulpore the settlements were completed; revised assessments were sanctioned for large areas in Nagpur, Wardha, Saugor, Nursingpore, Hoshangabad, and Chindwara; the work in Betul and Chanda is less forward. Progress has been quite up to the estimate framed five years ago, and the cost of the work has been less than was anticipated. The revised assessments framed during the year yielded an increase of Rx. 56,400 in the revenue, in addition to Rx. 34,800 secured in Jubbulpore and Nagpur during the previous year. The rate of increase ranged from 69 per cent. in part of the Nerbudda Valley to 26 per cent. in Wardha and 21 per cent. in Nagpur. Even the largely enhanced revenue now assessed on the northern districts does not amount to one-half (the share allowed by rule) of the gross rental. In the southern districts the position of the ryots is stronger, their rents had not greatly risen during the past 30 years, and some enhancements of rent were made by the Settlement Officer. In the northern districts rents have in many places been reduced with the consent of the proprietors. By the end of the year cadastral surveys had been completed over 46,010 square miles out of 49,533 square miles, at a cost of 68 rupees per square mile, and assessments had been completed over 18,971 square miles, at a cost of 42 rupees per square mile. The cost of survey and assessment together has been, so far, something less than two annas per acre; the work, including Raipur and Bilaspore, completed some four years ago, has occupied eight years; it may take three years more, and a further expenditure of Rx. 100,000, to finish the whole re-settlement, which will then have yielded an addition of 16 or 18 lakhs to the land revenue.

Assam.

Regular survey operations in the Province of Assam were confined to the districts of the Surma Valley; cadastral surveys were effected over 117 square miles, and traverse surveys over 250 square miles in Cachar; and revision surveys were prosecuted over 433 square miles of Sylhet. The cadastral surveys, previously completed in the Kamrup, Darrang, Sibsagar, and Lakhimpur districts of the Assam Valley, resulted during the year in an addition of Rx. 3,435 to the land revenue, or $12\frac{1}{2}$ per cent. on the old revenue of the area surveyed. A general revision of the land revenue assessment rates for the whole of the temporarily settled tracts in the Brahmaputra Valley was, after some years of discussion and inquiry, effected during the year. The old rates had been fixed in 1867, and had remained unchanged since that year; the

the new rates were based on information acquired at the recent cadastral survey, on the increased prices of produce and on the general advance of agricultural prosperity throughout the valley. Further details regarding this revision will be found in the Land Revenue chapter of this Statement. The net result of the revision will be an enhancement of Rx. 102,600, or 33 per cent., in the land revenue of the Assam Valley; and the average incidence of the revised revenue on the cultivated land will be Rs. 2. 5½ annas per acre. Some enhancement was also effected of the land revenue rates in the Eastern Duars or sub-Himalayan tracts of Goalpara; the effect of this revision will be apparent in next year's Statement. SETTLEMENTS AND CADASTRAL SURVEYS.

In Madras four parties were employed on original cadastral surveys, and two parties on re-surveys during the year 1893-94. The area of original survey effected during the year was 2,189 square miles, or 9 per cent. less than in the previous year; the cost was Rs. 188 per square mile, against Rs. 179 per square mile in 1892-93; the reduction in out-turn and the small increase of cost were due to the arduous character of the work in Malabar. The area of re-survey in four districts, namely, Trichinopoly, Kistna, Salem, and Godavari was 2,510 square miles, and the cost was Rs. 48 per square mile; the out-turn of re-survey work was 7 per cent. above the previous year; in three districts the village accountants (*karnams*) performed a large share of the work. In three districts areas aggregating 2,066 square miles remain for original survey, and it is expected that the original survey of the Madras Presidency will be completed by 1896, by which year also the re-survey of the districts now in hand should also be finished. The number of copies of survey and other maps struck off during the year was 270,000, or 10 per cent below the out-turn of the preceding year. The cost of the survey during the year was Rx. 61,822. This includes a sum of Rx. 3,500 expended on training the village accountants (*karnams*) in six districts, and in the new organisation for maintaining the survey records and correcting them yearly in five districts. The total outlay on survey and settlement, since operations began in 1858, has been Rx. 3,210,000; while the net increase of revenue secured has been Rx. 500,000, or 15 per cent. on the outlay. Madras.

In Bombay, where settlement work is nearly finished, the office of Survey and Settlement Commissioner has been amalgamated with that of Director of Land Records and Agriculture, and the supervising staff, which used to consist of Europeans, has been recruited from educated Indian officials of the Revenue Department. The results of these changes have, so far, been satisfactory. An advantage of the latter measure will be that a larger number of revenue officials will be versed in the details of the survey and settlement system and records, for the administration and maintenance of which those officials will hereafter be responsible. Three parties were employed on survey and settlement work in British districts during the year, while a fourth—manned almost entirely by Indians—was employed in and paid by Native States. During the year ending October 1893, the parties in British districts measured an area of 890 square miles, and classified an area of 893 square miles. The largest area was done in the Konkan, where the cost of the combined operations was 337 rupees per square mile. In Gujarat the area surveyed was small, and the combined cost was 668 rupees per square mile. Much of the work consisted of testing and correcting old surveys and records, rather than of measuring the land anew. The cost of the Department during the year was Rx. 42,385, or Rx. 8,969 less than in the preceding year. The revised assessments of the year amounted to Rx. 174,000, which was Rx. 38,700, or 28½ per cent. above the previous demand. The total increase of revenue secured by the settlement revision operations in Bombay up to October 1893 came to Rx. 352,900 a year, or 32 per cent. on the former demand; this increase is outside the yearly increment of revenue due to the extension of cultivation. The cost of the revision operations, exclusive of work in Sind, has been Rx. 565,000. In Sind the settlement has been completed. The new party for the survey and settlement of Native States broke ground during the year in the States of Phaltan, Akalkot and Aundh. So far, the work of measurement and classification has been conducted at less cost than in British districts. Bombay.

In Berar, re-settlement has begun in consequence of the expiration of the original settlement, which was made on the Bombay system about 30 years Berar.

SETTLEMENTS AND CADASTRAL SURVEYS.

years ago. The total area to be dealt with is 13,350 square miles, of which 12,134 square miles are either under crop or current fallows. The original measurement and classification of the land are being left untouched, save in a few cases where tests are applied to the old work, or for special causes re-measurement is found necessary. The old work of 1861–67 turns out to be still good. Two survey parties were at work, consisting chiefly of indigenous surveyors. The survey was completed for 603 villages, in which re-measurement was effected of 26,000 acres, and for 919,000 acres the old work was confirmed. The cost of the operations came to 22 rupees per square mile. Re-settlement proposals were made for three sub-divisions, and were sanctioned after the close of the year. In the eastern districts of Wun and Basim, where there were many leased villages, all the land had to be measured and classified anew; and 129,000 acres were finished at a cost of Rs. 192 per square mile.

VII.

LAND REVENUE, INCLUDING FISHERY RECEIPTS AND CAPITATION TAX, AND WARDS' ESTATES.

LAND REVENUE.

THE subjoined table shows the receipts and disbursements on account of land revenue for each province, as entered in the public accounts for the year 1893–94; also the net land revenue for the past two years.

DETAILS of LAND REVENUE and EXPENDITURE.

	Bengal.	North West Provinces and Oudh.	Punjab.	Lower Burma.	Upper Burma.	Central Provinces.	Assam.	India, General.	Madras.	Bombay.	TOTAL.
REVENUE.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Ordinary Land Revenue	3,777,319	6,010,722	2 318,670	1,014,145	105,515	686,381	518,628	160,938	5,419,221	3,733,835	23,745,374
Sale of Proprietary Right of Government in Land.	559	323	125	—	—	—	—	59	4,409	—	5,475
Assessment or quit-rent of alienated lands.	17.273	—	22,338	—	—	—	—	--	—	953,508	983,119
Sale of Waste Lands and Redemption of Land Revenue.	2,686	—	1,524	25	—	—	986	335	2,450	—	8,006
Capitation Tax or House Tax levied in lieu thereof.	1,619	—	—	390,338	—	—	—	1,539	—	—	393,496
Receipts for the Improvement of Government Estates.	47,850	—	—	—	—	—	—	—	—	—	47,850
Fisheries and other Receipts classed as Miscellaneous.	34,196	43,328	102,878	204,598	617,294	5,841	42,114	12,173	62,412	28,451	1,153,215
Total Gross Revenue Rx.	3,871,432	6,054,373	2,445,535	1,609,106	722,809	692,222	561,728	175,044	5,488,492	4,715,794	26,336,585
Deduct portion credited to Public Works.	—	117,498	21,899	—	—	—	—	—	531,491	76,038	746,926
Total in Revenue Accounts for 1893–94 Rx.	3,871,432	5,936,875	2,423,636	1,609,106	722,809	692,222	561,728	175,044	4,957,001	4,639,756	25,589,659
Corresponding Total for previous year, 1892–93 Rx.	3,849,609	5,927,414	2,342,709	2,267,657	Included in Lower Burma.	695,038	472,950	139,397	4,651,073	4,649,613	24,995,328

In India the State, or the monarch, has always enjoyed a share in the rent or profits from the land. This revenue is levied according to an assessment fixed, either permanently or periodically, on estates or holdings. The assessment was fixed permanently 100 years ago on certain tracts paying about Rx. 4,311,000 a year; and it is fixed periodically, for terms of 12 to 30 years, over the rest of India. On large estates, ranging from a few hundred to many thousand acres each, the periodical assessment is a share, generally about one-half, of the rental enjoyed by the proprietors; on small estates cultivated by peasant proprietors the periodical assessment is imposed on the cultivated area at a rate per acre fixed with reference to the productiveness of the land, and representing about one-half of the estimated letting value. The permanently settled tracts comprise the greater part of Bengal, about one-fourth of Madras, and certain southern districts of the North West Provinces. Of the temporarily settled tracts, the North Western Provinces, the Punjab, Oudh the Central Provinces, and Orissa mainly contain estates held by proprietary brotherhoods or large proprietors; while in Bombay, Burma, Assam, and Berar, and in the greater part of Madras, the land is held and tilled by petty proprietors. In the permanently settled tracts of Bengal the land revenue falls at about two-thirds of a rupee per acre of cultivated land, and represents on an average about one-fifth of the rental,

LAND REVENUE

or perhaps one twenty-fourth of the gross value of the produce; in similar tracts of the North West Provinces the incidence of the land revenue is somewhat higher. The average advantages of soil and climate are on the whole greater, and the prevailing rates of rent are on the whole higher, in the permanently settled than in the temporarily settled tracts. In the latter tracts the land revenue represents something less than one-half of the actual or estimated rental, and is probably about one-tenth to one-twelfth of the gross value of the produce. Rates of rent and revenue vary greatly according to the productive power of the land, according to the advantages of climate and rainfall, and according to the facilities for carrying produce to markets or to the sea-board. Payment for water, supplied by State canals or reservoirs for purposes of irrigation, is made either according to the area irrigated or according to the quantity of water used; but the State demand on any land is not enhanced on account of increased productiveness due to improvements made by the proprietors or occupiers themselves.

The land revenue of the year 1893-94 shows an increase of Rx. 684,000, as compared with the previous year. On the whole the tendency of the land revenue is to increase gradually and slowly, partly from periodical revisions of the assessment rates after a period of advancing prices, and partly from extensions of cultivation. The increase during the last six quinquennial terms may be thus shown:—

Period of Five Years from	Average Yearly Land Revenue Receipts of the Period.
	Rx.
1861-65 - - - - - -	19,931,000
1866-70 - - - - - -	19,990,000
1871-75 - - - - - -	20,965,000
1876-80 - - - - - -	21,114,000
1881-85 - - - - - -	22,122,000
1886-90 - - - - - -	23,432,000
1891-94, four years - - - -	25,152,000

A part of the increase during later years was due to the acquisition of Upper Burma, which yielded Rx. 167,000 of land revenue in the year 1886-87, and Rx. 723,000 in the year 1893-94.

The progress of the land revenue, the condition of the landed classes, and the relations of these classes to each other are now noticed province by province.

Bengal.

The seasons of 1893–94 in Bengal were marked by very heavy rain in the monsoon season from June to October, and unusually little rain in November and December. The crops were good, and prices fell in the dry districts to the west; in the eastern districts, where the rainfall is ordinarily abundant, the harvests were below the average, and prices ruled high. Some distress was felt in parts of the central districts. In Orissa crops were on the whole good, and prices fell.

The land revenue demand showed an increase of Rx. 11,305, owing to resettlements in the Doars and other temporarily settled tracts; and the collections on account of the current year's demand showed an increase of Rx. 18,177; the proportion of collections to the total demand was 96½ per cent., and $99\frac{9}{10}$ per cent. to the current demand; the collections were more punctual than in the previous year. Remissions to the extent of Rx. 12,140 were granted, chiefly on lands where the crops had been swept away by inundations. The uncollected arrears at the end of the year were Rx. 153,237, or Rx. 9,000 less than in the previous year. Sales of land for arrears occurred in 1,429 cases, out of 16,239 cases in which land became liable to sale under the law. The estates sold were mostly small and of little value; the total arrears due thereon were Rx. 4,505, and 42 estates were bought in by Government for a total price of Rx. 17. In 143,886 cases, against 146,572 in the

the previous year, arrears of public demand other than land revenue were taken into court under the certificate procedure, with the result that in 3,818 cases, against 6,380 cases in the previous year, attached property was sold; in 1,984 cases warrants for arrest were issued, and in 34 cases defaulters were actually sent to jail. The number of defaulters sent to prison in the previous year had been 63. LAND REVENUE.

Revaluations of the rental for the purposes of the Road Cess Act were completed during the year in 15 districts. The total demand of the year for the road and public works cesses was Rx. 823,584, showing an increase of 3 per cent. over the previous year. The registration of landowners has now been completed for the whole of Bengal except the district of Cuttack; the total number of interests registered under the initial registration was 973,132; and the percentage of transfers by succession or otherwise that were registered during the year was 6·6 on the total number of interests registered under the initial registration; the corresponding percentages in each of the two previous years was 5·5 and 5·7.

The relations between landlords and tenants are reported to have been, with certain specified exceptions, generally satisfactory during the year. From some districts instances of strained relations and of discontent on the part of the ryots are reported; from Mymensingh difficulties are reported among the tenants of certain absentee landlords; in Backergunj much ill-feeling between Zemindars and ryots was apparent, and in one case murder resulted; from Monghyr, Gaya, Durbhanga, and Champaran trouble and occasional rioting are reported, but in no case was the friction due to the Cadastral Survey operations. The Bengal Tenancy Act continues to work smoothly. The Act came into force at the end of 1885; and the returns of suits under the rent and tenancy laws of Bengal for recent years show:—

1887 - - - -	189,387	total suits under the Rent and Tenancy Law.
1891 - - - -	204,250	„ „ „
1892 - - - -	208,505	„ „ „
1893 - - - -	219,157	„ „ „

During the year 63 landholders applied to have their estates surveyed and settled under Chapter X. of the Tenancy Act. Of these, 52 were private estates, the remainder being Government and wards' estates.

The latest report on land revenue affairs in the North West Provinces and Oudh pertains to the year ending 30th September 1893. The rainfall of the year was abundant and timely; the autumn harvests were better than in the previous year; the yield of the spring crops was unusually good. Over the greater part of the provinces the year was a time of agricultural prosperity. The total area under cultivation showed an increase of 85,000 acres. The area twice cropped during the year was 7,280,000 acres, whereby the total crop area was brought up to 41¼ million acres. The irrigated area was 9,193,000 acres, or 7 per cent. less than in 1891-92; of this total, 4,845,000 acres were irrigated from wells. The public health was unusually good in all parts. Prices of food were distinctly easier than they had been for several years; the coarse food grains consumed by the poor were comparatively cheap in most districts. There was no scarcity or distress anywhere. Serious mortality from rinderpest and other epizootic disease occurred in the northern districts, but elsewhere the condition of the cattle was better than usual; and the supply of fodder was generally ample. North-West Provinces and Oudh.

The gross collections of land revenue in the North West Provinces and Oudh under all heads were Rx. 7,492,000, as compared with Rx. 7,510,000 in the previous year. The decrease, Rx. 27,000, was due to the reductions recently made in the assessment of deteriorated tracts in the Agra division. Almost the whole of the demand was collected within the year, and the real as distinguished from the nominal and irrecoverable arrears uncollected at the end of the year were Rx. 4,680. There was little difficulty in realising the revenue, the natural result of good harvests; and the total number of coercive processes of all kinds fell to 70,000, against a total of 77,000 during the preceding year; attachments of property for arrears fell from 8,663 to

LAND REVENUE.

7,016, and the number of sales of defaulters' property was 354, against 367 in the previous year.

The number of suits and applications under the rent law in the North West Provinces was 263,646, or 3 per cent. above the total of 1891-92, and was larger than in any previous year. Of the suits, over 90 per cent. were, as in previous years, for arrears of rent. The number of notices of ejectment brought against privileged tenants was 19,684, or 2 per cent. more than in the previous year, and in 7,236 cases ejectment was effected; the area affected by the ejectments was 42,273 acres, or one per cent. larger than in the previous year. Against tenants-at-will 65,665 notices of ejectment, or 2 per cent. more than in 1891-92, were filed, affecting 340,532 acres; 29·2 per cent. of these notices were contested, and in 8,306 cases, or 57 per cent. of the contests, the tenants were successful. Of the total area occupied by tenants, 10,263,000 acres were held by persons possessing some kind of tenant-right, but the area held by privileged tenants showed a decrease compared with the previous year. The number of notices of relinquishment filed by tenants rose from 17,289 to 21,101; and the number of applications by distraining landlords for sale of tenants' property rose from 25,656 to 34,223.

In Oudh the number of suits under the rent law was 35,021, and of applications 16,055, against 34,112, and 14,489 respectively in the previous year. Of the suits, 68 per cent. were for arrears of rent; and 45 per cent. of all suits were contested. Notices or applications for ejectment of tenants rose from 12,841 cases, affecting 80,613 acres, to 16,055 cases, affecting 98,611 acres; tenants were actually ejected from 8,908 holdings, with an aggregate area of 50,191 acres. It is reported that forcible evictions of tenants by other than legal process are fewer in Oudh than they were. The applications for ejectments of statutory tenants in Oudh rose from 4,301 to 6,126; and ejectment took place from 3,649 holdings, covering 13,959 acres. The average rise in the rents of re-let lands was 13 per cent. The number of applications for partitions was 3,025, or 11 per cent. more than in the previous year, and the arrear business of this kind had again increased at the end of year. The number of loans granted under the Land Improvement Loans Act of 1883 decreased from 733 to 451, of which 316, for Rx. 7,178, were to landlords, and 135, for Rx. 1,477, were to tenants; under the Agriculturists Loans Act, Rx. 23,052 were advanced during the year., against Rx. 45,398 in the previous year. The large decrease in the loans and advances under both Acts was attributed to the favourable character of the season. The outstanding amounts for principal and interest. under both Acts, at the end of the year was Rx. 86,276; and overdue instalments for principal and interest amounted to Rx. 7,672.

Punjab.

The latest Punjab land revenue report and statistics are for the year ending on the 30th September 1893. The autumn and winter rains were both most favourable. There were serious inundations in parts of two districts, and there was excessive moisture in parts of some other districts; but the crops, especially the food-crops, were excellent all round. The total area of crops harvested was 26¾ million acres, as compared with 21¾ million in the preceding year, and 22¼ million acres the average of the preceding five years; the irrigated crops covered 7,635,000 acres, or 28 per cent. of the whole area of harvested crops; of the total, 3,037,000 acres were irrigated from canals, the rest from wells; the canal-irrigated area increased by 204,000 acres. The export demand for wheat was weak; and the prices of food, which had been very high and given rise to complaint for several years, fell considerably. The land revenue demand of the year showed an increase of 1½ per cent., and the collections showed an increase of 3 per cent. over the previous year. In consequence of the bountiful harvests an unusually large amount of the arrear balances was collected. There was little trouble or friction in the process of collection.

The number of suits for enhancement of rent rose from 1746 to 3788, of which number 2,953 cases were instituted in the Guzrat district, and were of a simple character. Landlords were successful in 80 per cent. of these suits. The number of decrees passed for ejectment of occupancy tenants was 58, and 8,092 decrees of ejectment were issued against tenants-at-will, compared with 7,001 in the previous years. Fifty-three per cent. of the total cultivated area of the province is tilled by proprietors and 47 per cent. by tenants. Of the land

land held by tenants 78 per cent. was in the hands of tenants-at-will and 22 per cent. was tilled by tenants with occupancy-right. Tenancies-at-will increased, and tenancies with occupancy-right decreased during the year. Cash rents range from one-sixth of a rupee in the rainless tracts of the Derajat up to 50 rupees per acre on the very best irrigated land, and they average $3\frac{1}{33}$ rupees per acre for the whole province. On 52 per cent. of the area held by tenants the rent is still paid in kind. There was an increase of 12 per cent. on the area mortgaged, as compared with the previous year. The area under mortgage at the end of the year was 4,232,000 acres or 7½ per cent. of the total of proprietary lands. The average price realised for land sold during the year is returned at 59 rupees per acre, for a total area of 371,038 acres sold. Out of the 602,000 acres of waste land in the Central Punjab, which have been made culturable by the new Chenab Canal, 236,000 acres had previously been allotted to colonists who had come from over-peopled districts; 152,000 acres more were allotted during the year; 80,000 acres were cultivated during the year. The settlers have, so far, done more than was expected of them. LAND REVENUE.

The rainfall of 1893 in Lower Burma was abundant up till October, when it became scanty; inundations and a cyclone caused loss in some localities; and the rice crop, which covers nine-tenths of all the cultivated land in Lower Burma, was slightly below the average. In Upper Burma, for the first time since annexation in 1886, the rainfall was sufficient and the crops were good. The price of rice again fell; during the export season of 1892 paddy (rice in the husk) had averaged 100 rupees for 100 bushels; in 1893 the price had been from 80 to 75 rupees; and by March 1894, the average price fell to 68 rupees per 100 bushels, a lower rate than had been known for several years. In Lower Burma the cultivated and assessed area increased by 90,000 acres, or nearly 2 per cent. during the year, a small increase compared with the advance of 340,000 acres in the previous year. The land revenue increased 5 per cent. Part of the increase was due to extensions of cultivation and part to revised assessments made at the recent regular settlement. The fishery and capitation revenue in the Lower Province also showed a further advance. In Upper Burma there was also an important increase in the capitation tax, which still takes the place of land revenue over the greater part of the country, and in the revenue from State lands. These increases were due to the good harvests, and to the return of families which had migrated to Lower Burma in the hard times of 1887–92. The revenue was realised, for the most part, punctually; but, in some districts, there was delay in paying the land revenue in consequence of the slackness of the rice market. The arrears of land revenue, uncollected at the end of March, were over Rx. 70,000, as compared with Rx. 10,000 at the end of March 1893. BURMA.

The large advance made of recent years by Burma under all heads of revenue accruing from the land may be seen from the following figures:—

	Burma revenues from land in		
	1891–92.	1892–93.	1893–94.
	Rx.	Rx.	Rx.
Land revenue, Lower Burma - - -	922,600	1,021,500	1,071,500
Capitation tax - ditto - - - -	371,500	383,000	388,700
Fishery revenue - ditto - - - -	162,100	169,100	179,700
Capitation tax, Upper Burma - - -	430,700	468,900	546,800
State lands revenue - ditto - - -	99,200	121,200	104,900
Forest revenue in the combined provinces -	418,500	566,000	578,000
Miscellaneous land revenue - ditto - -	70,000	82,000	93,200
TOTAL - - -	2,474,600	2,811,700	2,964,800

LAND REVENUE. Central Provinces.

The latest land revenue report from the Central Provinces is for the year ending in September 1893. The rainfall was considerably above the average, but it was unequally distributed. Very heavy rain in July and August injured the autumn crops, and showers in February and March spoilt what promised to be a bumper wheat harvest. All autumn crops, especially rice, were better than in the preceding year; the wheat, spoilt by excessive moisture, was scanty, but the linseed harvest was good. Prices of all field produce ranged lower than in the previous year; the cheapness of the coarser food grains gave much relief to the poorer classes. The land revenue demand showed an increase of Rx. 35,000 or 5½ per cent., due to resettlements of revenue. All but Rx. 300 (or ·04 per cent.) of the demand was collected during the year. There was an increase in the number of coercive processes for realisation of arrears, and the total number was 5,531, against 4,706 in the previous year. Two defaulters were sent to jail during the year, no land was sold for arrears, and there were 15 sales of moveable property for default. There was an increase in the area of land transferred by sale or mortgage; the total area of such transfers was 531,000 acres, as compared with 449,000 acres in the previous year. Litigation under the tenancy and rent law continues to be as yet small. Suits for arrears of rent rose from 8,709 in the preceding year to 8,734, of which 20 per cent. went in favour of the defendant; the number of notices for ejectment of ordinary tenants was 1,635 or one less than in the preceding year. Out of a total occupied area of 19¾ millions of acres, less than 4½ millions or about 24 per cent. are held by tenants-at-will, the remaining 75 per cent. being cultivated by proprietors and privileged tenants; while the average rent paid by ryots of all classes, holding 15 million acres, was 13½ annas per acre, or less than one-third of the average rack-rent paid by sub-tenants.

Assam.

In the Assam Valley, the rainfall of 1893-94 was above the average in the Surma valley and much below in the Brahmaputra valley; floods in the Surma valley did harm to the early rice crops, but, on the whole, the season was favourable to most crops and especially to tea. The price of rice was above even the high price of the preceding year; the further rise was attributed to the short harvests of the previous year in Bengal and Assam. The land revenue demand increased by Rx. 109,000 or 25 per cent. The increase occurred entirely in the Assam valley where the land revenue rates, that had been in force since 1867, were revised on the expiry of the current decennial settlements in March 1893. Under the assessment of 1867, three rates of 16 annas, 10 annas, and 8 annas per beegah (about one-third of an acre) were applied respectively to all *basti* (homestead and gardens, close to the village site) lands, to all *rupit* (low lying rice fields away from the village site) lands, and to all *faringati* (upland fields, yielding mustard, seeds and crops other than rice) lands; these rates were the same all over the Assam valley, and no distinction was made between the various qualities of soils. During the 25 years prices of produce had largely risen, communications by land and water had improved, the tea industry had made great strides, the standard of living among the people had advanced, trade and the consumption of imported commodities had increased, and it seemed reasonable that the land revenue demand should be somewhat enhanced. Careful cadastral surveys had been made of all occupied lands, and it was decided to fix nine different rates of land revenue, namely:—

	Basti lands per beegah.	*Rupit* lands per beegah.	*Faringati* lands per beegah.
In first class villages - - -	22 annas.	16 annas.	12 annas.
„ second „ „ - - -	20 „	14 „	10 „
„ third „ „ - - -	18 „	12 „	9 „

Villages, or larger areas, such as circles and sub-divisions, were classified according to the demand for land evidenced by the density of population and the proportion of cultivated land, according to the soil, and according to the

the productiveness of the crop. For instance in the Lakhimpur and Sibsagar districts, which are the best tea lands in Assam, all the upland soil is placed in the first class of *faringati* lands. When the classification of all villages is complete, the resettlement will, it is expected add Rx. 102,600 or 33 per cent. to the land revenue of the Assam valley. The total *basti* area was 179,000 acres, the *rupit* area was 1,006,000 acres, and the *farangati* area was 609,000 acres. Out of the whole demand, including arrears, 93·24 per cent. was realised, ·09 was remitted, and 6·66 remained at the end of the year still to be collected, as compared with 1·93 per cent. uncollected at the end of the previous year. The increase of arrears was mainly due to delays in the re-assesment operations. The balances were reduced from Rx. 36,380 on the 1st April to Rx. 7,743 on the 30th April 1894. The remissions made during the year came to Rx. 483, as compared with Rx. 162 remitted in the year 1892–93. The miscellaneous land revenue receipts showed an increase of Rx. 5,656 over the total of last year and amounted to Rx. 42,407; the increase was yielded chiefly by royalties on the capture of elephants, and survey fees. LAND REVENUE.

The number of tea-grants in the province for the year 1893 was 794, and the area held under them was 1,045,344 acres. During the year the number decreased by 13, but the total area of land held under the grants rose by 350 acres. The average incidence of the land revenue in the Assam valley under the revised settlement is Rs. 2·35 per acre of cultivated land.

In the Madras Presidency the season was generally favourable during the year 1893–94; the rainfall of the south-west and of the north-east monsoon exceeded the average in each case; but the north-east monsoon ceased at the end of November, which was unusually early. The area under crop was 27 million acres, and exceeded by 900,000 acres the cultivated area of the preceding year, and by nearly 1,500,000 acres, the average area of the five preceding years. Prices of food ranged 10 to 13 per cent. cheaper than the average of 1892–93. Madras.

The latest report on land revenue affairs in Madras pertains to the year ending on the 30th June 1893, that is to the season preceding that to which the foregoing paragraph relates. The total area under occupation by raiyats in the districts for which statistics are available, was 21,620,000 acres, or 2 per cent. over the area of 1891–92, which was previously the highest on record. The increase in the occupied area was common to all districts except four. Of the occupied area, 83 per cent., as compared with 79·6 per cent. in the previous year, bore crops. During the 10 years ending in 1891 the proportion of cultivated to occupied area had averaged 85 per cent., and the falling-off in 1891-92 was due to the badness of the season. The remissions of revenue fell from 37 lakhs in 1891–92 to 15 lakhs, and the total land revenue demand for the year showed an increase of 36 lakhs as compared with the preceding year. Of the whole, 95½ per cent. was collected within the year.

The season of 1893–94 was favourable in the Bombay Presidency; the rainfall was seasonable and sufficient; in some districts harm was done by excessive rain to the autumn crops; but the spring crops were benefitted, and the harvests generally were up to, if not rather better, than the average. Prices of food grains fell somewhat. The gross cropped area of the Presidency, so far as figures were available, was 25,407,000 acres, or nearly 2 per cent. less than the area of the previous year. The collections on account of land revenue were Rx. 3,685,444, being Rx. 17,819, or ½ per cent. less than in the preceding year. The revenue was collected without friction, and less than 1 per cent. of the demand was unrealised at the end of the year. In Bombay proper and Sind the number of occupancies was returned at 1,468,774; and the number of warrants of distraint issued for arrears was 63 per cent. fewer than in the previous year. Bombay.

The rainfall of 1893 in Berar was below the average, and the crops of both the autumn and spring harvests were short. The price of millet (jowari), the food of the people, and the price of wheat were 10 per cent. cheaper than in the previous year. The year was, on the whole, an unhealthy one. The total area under crop was 6,791,000 acres, or 14,000 acres less than in 1892–93; there was a large decrease in the millet area, which occupied 31 per cent. of the cultivated land of Berar, and some decrease in the wheat area which covered 13·7 per cent.: Berar.

LAND REVENUE.

the area under cotton increased, and was 32·2 per cent. of the whole cultivated land; while the linseed area rose from 5·2 to 8·5 per cent. on the whole area of cultivation.

The land revenue collections of the year showed an increase of Rx. 11,546, raising the total to Rx. 638,000; the increase was mainly due to the realisation of outstanding arrears from the previous year. Of the demand actually due for the year less than ¼ per cent. were uncollected. The number of coercive processes issued against defaulters showed an increase, there having issued 10,324 writs of demand against 8,336 in the previous year; in 30 cases personal property was sold for arrears; 125 fields were also sold; but no defaulters were sent to prison. The area of land transferred by private sale was 139,000 acres, or somewhat above the total of the previous year; the area transferred is small, as compared with the total of 7,766,000 acres under occupation; the average price fetched was 16 times the revenue assessment. The inspection of village records, and of the ryots' receipt books were fewer than in the preceding year. The number of boundary marks found to be out of repair on cultivated land was 365,000, of which all on occupied lands, except 19,000, were repaired by the close of the year.

WARDS' ESTATES.

WARDS' ESTATES.

In most of the larger provinces a Court of Wards has been established, which can undertake the management of estates belonging to minors, idiots or other persons declared incapable of managing their own affairs. The position and powers of the Court of Wards are prescribed by law; and recent enactments have enabled indebted proprietors to place their estates voluntarily under the Court of Wards. The duty of the Court is to manage the estates under their charge to the best advantage of both proprietors and tenants, to support the family of the proprietor and to educate young wards, to pay off debts due by the estates, and to spend the surplus income on the improvement of the property in the best attainable way. During the year 1893-94 the number of estates managed by Courts of Wards in different parts of British India was 1,223, with a total annual income of Rx. 2,234,000; the period for which an estate remains under the Court of Wards is generally from 10 to 12 years.

Bengal.

In Bengal, 78 wards' estates and 67 attached estates, or five more than in the preceding year, were under the management of the Court of Wards, with a total rental of Rx. 973,220; the collections on account of arrears and current demand came to 96·5 per cent. on the demand, as compared with 98·1 per cent. in the preceding year. The cost of management was 7·9 per cent. on the current demand, slightly more than in the preceding year. There was spent on schools, dispensaries, and improvement and maintenance of estates, a sum of Rx. 71,300. Debts to the amount of Rx. 123,000 were paid off during the year, and the outstanding debts due from all wards' estates were Rx. 373,000 at the close of the year. The cash balances at credit of wards' estates were Rx. 186,000 on the 31st March 1894, and the investments in Government securities were Rx. 456,000. Eleven estates were taken over, and 10 released by the Court of Wards during the year.

The only important estate released during the year was Dighaputtea, which was taken over by the Court of Wards in 1883, at the request of the late Raja on his death bed. During the past 10 years the rent roll has increased 20 per cent., and now exceeds seven lakhs. Investments to the amount of 17 lakhs have been made in Government securities, and of 2¾ lakhs in landed property. Residencies for the young Zemindar and his brothers have been built, besides schools, dispensaries, water supply, tanks, and roads. No debts were due from the estate and outstanding claims by the estate have been reduced from 5 lakhs to 2½ lakhs. The wards have all been well educated; the eldest after passing the Calcutta matriculation examination, read for two years at college, and then spent two years in learning the practical part of estate business, coming in close contact with his tenantry; his physical training was not neglected, and it is expected that he will make an active and useful landlord; he has expressed much gratitude to the Court of Wards for his up-bringing and for the management of the estate. Of the other three brothers one has passed the B.A. course at the Calcutta University with

with honours in English and philosophy, and the other two are still at college. All the successive managers of the Dighaputtea estates, the guardians and the tutors of the wards were Bengali gentlemen. The first manager was a friend and neighbour of the late Raja. WARDS' ESTATES.

The number of estates under the Court of Wards in the North Western Provinces and Oudh, at the end of September 1893, was 148, with a total annual income of Rx. 433,000. Nineteen estates were restored to their proprietors during the year, nearly all of them free from debt, most of them with a considerable balance at credit or invested, and some with a materially increased income and with valuable improvements effected. In every case attention had been given to the education and training of the ward, and, as far as possible, of his brothers and sisters. Against the estates under the Court there had been debts amounting to Rx. 1,419,000, which were reduced by March 1893 to Rx. 303,000. The cost of management averaged 7 per cent. on the total receipts; and Rx. 14,800 were spent on works of improvement. Of the year's rental, 96 per cent. was collected; Rx. 57,400 were expended in paying off debt; while Rx. 39,600 were invested in public securities, or on mortgage, or in the purchase of lands and houses; and Rx. 3,300 were spent on giving help to tenants. The number of notices of ejectment of ryots rose from 355 to 444, of which 89 per cent. went against the tenants; and there were eight suits for enhancement of rent, the rent being raised, on the average of these cases, from 3½ to 4½ rupees per acre. North Western Provinces and Oudh.

At the end of the year 1892-93, sixty-four estates were under the management of the Punjab Court of Wards. Five fresh estates came under the jurisdiction of the Court, and six estates were surrendered to their owners during the year. Of the 64 estates 50 belong to minors or idiots, 3 to persons declared by the Government to be incapable of managing their estates, and 11 to persons who applied to have themselves declared unfit to manage their property. In the previous year, the excess of income over expenditure was Rx. 31,918; in 1892–3 the total income of the Wards was Rx. 158,000, and their expenditure, including repayments of debt, was Rx. 169,000. The cost of management was 9½ per cent. on the total income of the estates. Rx. 66,400 were spent on paying off debts; the debts of all the Wards, which had been Rx. 217,000 when the estates were taken over, were reduced to Rx. 94,000 during the year. Investments made in behalf of Wards during 1892–93 amounted to Rx. 13,700. The expenditure on works of improvement was Rx. 15,100; on the personal expenses and education of Wards, Rx. 18,600; and the payment of land revenue and rates, Rx. 23,600, or 15 per cent. on the total income. Punjab.

In the Central Provinces the Court of Wards relinquished the management of 10 estates, with a rental of Rx. 3,100, and received charge of three estates. At the end of the year 124 estates, with a gross income of Rx. 170,000, were under management. In the three estates newly undertaken, management was in two cases assumed at the request of indebted proprietors who have been declared, at their own wish, incapable of managing their own property; the third was taken over because the proprietor was a child. The Court of Wards collected 93 per cent. of the rental of the year. The cost of management was 9 per cent. of the gross actual income. Of the debts due by embarrassed estates Rx. 19,200 were paid off during the year, and Rx. 107,600 were still due at the end of the year. About Rx. 24,400 were spent on the permanent improvement of, and in advances to ryots in, solvent estates; and Rx. 1,400 were invested in Government securities or landed property. Central Provinces.

The Court of Wards in Madras during the year 1892–93, the latest for which information is available, handed five estates back to their proprietors, and took charge of four estates; there were thus 54 estates under the Court at the end of the year, as compared with 55 at the beginning. In one of the estates surrendered the rental had risen from Rx. 24,600 to Rx. 31,700; all debts had been paid off; Rx. 14,600 had been spent on permanent improvements; and a cash balance of Rx. 21,000 was made over. The other surrendered estates were of small value. The total rent collections of the current year were Rx. 225,000, and they amounted to 80 per cent. on the current demand, or 1 per cent. better than in the previous year. The cost of management and of State assistance came to 11·3 per cent. on the total receipts of the year, which Madras.

WARDS' ESTATES.

amounted to Rx. 370,000, besides the opening balance of Rx. 120,000. The balance at the credit of all estates, invested and uninvested, at the end of the year was Rx. 603,000. The debts due by the estates at the end of the year were Rx. 220,000, debts amounting to Rx. 36,500 having been paid off during the year. The expenditure on works of irrigation and other improvements was Rx. 18,500. The progress in education of the 69 wards, 59 males and 10 females, was said to have been on the whole satisfactory. Six of the older minors on certain estates were instructed in Revenue law, and in the management of their estates.

Bombay.

In Bombay the estates under the Court of Wards or under Government management were of several kinds, namely :—

	No.
(1.) Estates under the Court of Wards, outside Guzerat - - - - - - - -	88
(2.) Encumbered estates in Guzerat, &c., managed under Acts of 1862, 1881, and 1884, and under the Civil Procedure Code; and talukdari villages - - - - -	555
(3.) Encumbered estates in Sind - - - -	21

The aggregate area of the 83 wards' estates outside Guzerat and Sind was 149,000 acres, and most of the estates are of small area.

The estates of the second category are all in Guzerat, and are under the care of a special revenue officer, in addition to his duties as assistant collector. The total rental of these Guzerat estates was Rx. 57,000, out of which Rx. 49,000 were collected during the year. Payments to creditors were Rx. 13,800 ; Rx. 14,400 were paid as Government land revenue ; maintenance of the owners and their families cost Rx. 8,900 ; and Rx. 5,400 were invested in Government securities and land on account of minors. The revenue of the talukdari (or proprietary) villages under the special officer's charge was Rx. 38,200, of which 86 per cent. was collected. On 21 encumbered estates in Sind, the cost of management ranged from 2 to 4 per cent. in the different districts. Out of a total income of Rx. 6,400, debts were paid off to the amount of Rx. 1,410 ; while five estates were freed from debt and restored to their owners ; and debts amounting to Rx. 1,900 were still due at the end of the year.

Burma, &c.

There were no wards' estates under the management of public officers in—

Burma,	Berar,
Assam,	Ajmere,

during the year.

VIII.

FORESTS.

FORESTS.

THE subjoined tables give the forest receipts, expenditure, and net revenue for each province during the year 1893–94.

——	Bengal.	North-Western Provinces and Oudh.	Punjab.	Lower Burma.	Upper Burma.	Central Provinces.	Assam.	India General.	Madras.	Bombay.	TOTAL.
REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Receipts - - - -	80,161	170,986	91,330	348,935	229,575	113,448	48,850	65,504	194,718	279,435	1,722,022
EXPENDITURE:											
General direction - - - -	—	—	—	—	—	—	—	7,934	—	—	7,934
Conservancy and Works - - -	15,035	58,474	34,341	96,986	16,330	44,278	11,242	32,738	68,121	113,315	490,860
Establishments - - - -	25,358	37,596	29,276	36,761	35,338	47,500	15,508	17,780	67,426	92,970	405,513
Charges in England - - -	—	—	—	—	—	—	—	2,100	—	—	2,100
TOTAL Expenditure - - -	40,393	96,070	63,617	133,747	51,668	91,778	26,750	58,452	135,547	206,285	906,407
Net Revenue or Forest Surplus - - -	39,768	74,916	27,713	215,188	177,907	21,670	21,100	7,052	59,171	173,150	816,615
Net Surplus of the previous Year, 1892–93 -	36,359	73,014	15,751	385,718	included with Lower Burma.	37,991	11,893	2,820	25,433	137,128	726,107

General.

Some beginning was made in the forest administration and conservancy of Southern India in 1844; 10 or 12 years later similar work was begun in Western and Northern India, and was taken up systematically all over India when the mutiny troubles were over. Within the last 20 years forest laws have been enacted for, and forest administration has been placed upon a permanent basis in, every province of India. The superior officers of the forest service have been, for the most part, selected by competition, and have been trained in forestry, either in Germany, or in France, or at Cooper's Hill College. During the past year it has been decided that 20 per cent. of the superior posts in the forest department shall eventually be filled by selected officers from the subordinate or provincial branch of the department. Some of the subordinate officials are trained at a forest school near Dehrá in the sub-Himalayan country of the North-Western Provinces, and this system of professional training at local centres will be gradually extended. The first object of the forest administration is to select, acquire, and mark off as reserves an area of State forest in every province sufficient to supply the wants of the neighbourhood and the province in respect of timber, firewood, bamboos, canes, and other forest produce, and sufficient also for supplying the foreign demand for such articles as teak-timber, sandal-wood, and rubber. The reserves are, or will be, surveyed, conserved, and worked on sanctioned plans, designed so as to obtain the largest possible permanent yield in the most economical way. Private rights in the reserves are bought out or compromised. Among the most important measures of conservancy are the exclusion of the yearly fires which used to devastate forests, the maintenance of adequate seed-bearing trees, and the regular reproduction of timber of the more valuable kinds. At the present time the reserves cover an area of nearly 72,000 square miles; and they may hereafter be further extended in Madras and Burma, where the work of reservation is as yet incomplete. Outside the reserves are about 36,000 square miles of State forests, some part of which will be eventually brought within the reserve area, and all of which are managed and worked for the benefit of the people, of their cattle, and of the public revenue. The limited areas of private forest are, except where they have

Forests.

been leased to the Government, being gradually exhausted; and as yet few private and no communal, forests have been successfully brought under conservancy. In every province a very few of the most valuable timber trees are declared to be reserved trees, and can only be felled under special license; outside the reserves, the country folk are generally allowed to obtain from the State forests timber, bamboos, firewood, and grass for their own use, free of charge; inside the reserves, only persons specially licensed are allowed to extract timber or other produce on payment of fees. Forest revenue is raised by royalties on, or by the sale of, timber or other produce, and by the issue at specified fees of permits to graze cattle, or to extract for sale timber, firewood, charcoal, bamboos, canes, and other minor forest produce. In the year 1893-94 the gross forest revenue of British India was Rx. 1,723,000; the expenditure was Rx. 906,000; and the net forest revenue was Rx. 816,000, as compared with Rx. 726,000 in the previous year. Some of the better-managed Native States, such as Mysore, Travancore, and Baroda have followed the example of the British Government, have organised systematic forest administration, and enjoy a considerable forest revenue. Mysore has nearly trebled its forest revenue since the country was restored to Native rule in the year 1881.

The following paragraphs treat of forest administration in each province. The figures of revenue and expenditure in the following paragraphs, being compiled from administrative returns, do not agree precisely with the figures given in the table on the preceding page, which are taken from the finally corrected financial accounts for 1893-94.

Bengal.

In Bengal, at the end of the year, the areas of reserved and protected forests were 5,831 and 3,059 square miles against 5,703 and 3,071 square miles respectively in the previous year. No forest surveys were made during the year; working plans have been settled and are in operation for 4,352 square miles out of the total forest area. The protection of forests from fire was unusually unsuccessful; attempt was made to exclude fire from 1,871 square miles, and the effort failed over 689 square miles, or 37 per cent.; in the Singbhoom district out of an area of 732 square miles of Government forests fires devastated 629 square miles as compared with 8 acres in the previous year. Natural production was abundant or satisfactory in the Sunderbuns and in the hill forests; but in the submontane and plains forests the reproduction of sal and other valuable trees was poor. The area of plantations was increased by 93 acres, and reached 5,590 acres by the end of the year, situated mostly in the Darjeeling district. There was a large decrease in the yield of timber compared with the preceding year, from 6½ million to 4¾ million cubic feet, an increase in the yield of fuel from 11¾ to 13¼ million cubic feet, and an increase in the yield of bamboos from 14 millions to 17 millions. The gross and the net forest revenues were Rx. 80,161 and Rx. 39,757, both of them larger than in any previous year; in the year 1892-93 the net surplus was Rx. 36,327. Under every head except "timber" and "miscellaneous" there was an increase of receipts as compared with the preceding year. The Sunderbuns forests yielded Rx. 49,116 out of the gross revenues.

North-West Provinces and Oudh.

The forests of the North-West Provinces and Oudh are divided into three "circles," and the forest reserves cover an area of 4,002 square miles, or 16 square miles more than the area of the previous year. Surveys and working plans were prepared for 356 square miles of reserves; and by the end of the year surveys and working plans had been completed for 1,450 square miles in all. The area over which attempts were made to exclude fires was 2,807 square miles; and fires occurred over 186 square miles, or 6 per cent. of the protected area. Natural reproduction of forest was very satisfactory in the Himalayan areas owing to the rainy summer of 1892; but was less favourable in the sal forests of the plains and the submontane country. The additions made to the regular plantations and cultured operations were 899 acres, consisting mostly of sowings of acorns and plantings out in oak forests; the total area of plantations, &c., was 7,046 acres at the close of the year. The total yield of the forests during the year was returned at 12,251,000 cubic feet of timber and firewood. The minor produce yield was returned at 14¾ millions of bamboos and Rx. 33,000 worth of grass, &c.: of the bamboos, 206,000, and of the grass, &c., Rx. 5,800 worth were taken by right-holders. The total forest revenue of the year was Rx. 163,672, of which Rx. 95,900 accrued from timber, Rx. 24,300 from fuel, Rx. 14,600 from

from bamboos, and the rest from grass and other minor produce. The forest surplus revenue of the year was Rx. 67,900, against Rx. 73,000 in 1892–93. FORESTS.

At the end of 1892–93 the reserved forest area of the Panjab was 1,634 square miles, besides 4,175 square miles of protected and unclassed forests. There was a small decrease in the reserved area owing to the exclusion of land required for cultivation, and there was an increase in the protected area owing to the extension of grass preserves for army purposes. The only forest survey effected during the year was 41 square miles of Himalayan forests in Bashahr. Regular working plans for the Bashahr and four other Himalayan forests were completed. Regular valuation surveys and working plans are not required for the savannah areas in the plains; but rough working schemes which suffice for present purposes have been prepared. The forests were comparatively free from fires owing to the late winter in the Himalayas; only 61 fires were reported, against 294 in the previous year; the area actually burnt was 2,871 acres, as compared with 51,108 in 1891-92; while the area of specially protected forests burnt over was 623 acres, compared with 23,504 in the preceding year. Natural reproduction was satisfactory in all forests. Apart from the Changa Manga forest the area of plantations was 21,001 acres, the receipts from which were Rx. 6,282, and the charges Rx. 5,306 during the year. There was a considerable increase in the number of reported offences against the forest laws; the cases taken into court decreased from 1,315 to 1,256, and the cases compounded under the law rose from 648 to 1,280. The total yield of the forests for the year was returned at 36¾ million cubic feet of timber, poles, and firewood; 31½ millions were removed by free-grantees and right-holders without charge, 3½ millions were worked out by Government agency, and 1¾ millions by purchasers. The sales of firewood to the public from the Changa Manga plantation forest rose from 61,210 cubic feet in 1891–92 to 1,007,032 cubic feet in 1892 93. Punjab, 1892–93.

The total forest revenue of the year was Rx. 81,263, against an outlay of Rx. 65,626, yielding a surplus of Rx. 15,637, which compares unfavourably with the surplus of previous years. The fall in revenue was attributed in part to the depression of the timber market; but it is said that large surpluses cannot be expected again from the Panjab forests for several years.

An area of 584 square miles was added to the reserved forests of Lower Burma, bringing the total area of reserves up to 6,209 square miles. In more than 500 square miles of the reserves the privilege of cultivating hill gardens has been secured for the forest tribes. Permanent boundary marks round all reserves were kept in good order. In Upper Burma 3,977 square miles from a total of 16,461 square miles of protected forests had been reserved, out of which area 253 square miles were secured for the use of forest tribes. Private rights in 1,069 square miles were settled during the year. Nearly all the best teak forests are in the hands of people holding leases from the ex-king, and some of these leases run until the year 1906. Burma.

In Lower Burma detailed valuation surveys were completed over 390 square miles of forest, but no regular working plans were sanctioned during the year. For other forests an annual plan of operations is prepared under the Forest Code, and, after sanction by the Conservator, is carried out, until such time as a regular surveys and working plans can be made. In Upper Burma regular surveys have begun, and 133 square miles were accomplished during the year. Rough surveys were also executed by local officers in conjunction with the work of girdling trees. Much further information as to the value of growing stock was collected as a basis for scientific working plans hereafter. In Lower Burma fire protection was not so successful as in the previous year. From 534 square miles of deciduous forest, or 96 per cent. of the protected area, fire was excluded, as compared with 496 square miles, or 99 per cent. in the preceding year. In the Upper Burma teak forests, where the rainfall is often less than in Lower Burma, no systematic efforts are yet made for the exclusion of fires, save in a few small areas, where the success was greater than in the previous year; from 58 square miles fire was excluded, as compared with 60 square miles over which protection was attempted, and with 14 square miles successfully protected in 1892–93. In Lower Burma the area of new plantations was 3,893 acres, 20 per cent. more than had been planted in the preceding year; the plantations, chiefly teak, now cover about 51 square miles. The teak worked out of the forests decreased by 8,690 tons, or 11 per cent., in Lower

FORESTS.

Burma, and increased by 20,240 tons in Upper Burma as compared with the previous year; the increase in Upper Burma was due to the season having been favourable for the floating of timber. There was a small increase in the forest revenue and forest surplus, which, since the acquisition of Upper Burma, have stood thus:

		Gross Forest Revenue.	Forest Surplus of Revenue over Expenditure
		Rx.	Rx.
TOTAL for Upper and Lower Burma	1887-88	251,576	136,191
	1890-91	432,196	298,353
	1892-93	566,000	391,265
	1893-94	578,900	399,400

The arrivals of teak by the Salween river at Moulmein were 80,792 tons, or 6,627 more than in the previous year; the arrivals at Rangoon by the Irrawaddy and Sittang rivers were 160,966 tons, or 30,171 more than in 1892-93. The export of teak from Burma by sea was 170,815 tons, as compared with 216,180 and 161,967 tons in the two preceding years. Of the teak shipments from Burma about a quarter went to Europe. The average value of the teak exports was Rx. 7½ per ton, or 3 per cent. cheaper than in the previous year.

Central Provinces.

The area of reserved forest in the Central Provinces remained unchanged at 19,671 square miles, of which 9,397 square miles were at the end of the year 1892-93 classed as A. or permanent reserves, and 7,777 square miles were classed as B. reserves. The B. reserves are available either for eventual transfer to the A. class, or for possible extensions of cultivation in future years; 392 square miles were so transferred from the B. to the A. category during the year, and 582 square miles were thrown out of reserves and made available for cultivation. In all 2,397 square miles that were formerly classed as forest had been thus set free for cultivation by the end of the year. The demarcation of reserves made progress and was practically completed in all, except Chanda districts. Surveys preparatory to the formation of working plans were being prosecuted in four districts; working plans were completed for 1,196 square miles of forest; the total number of reported forest offences fell from 8,546 in 1892-93 to 4,391 in 1893-94. Out of the reported offences against forest laws 4,142 were compounded under sanction of competent officers, and in 201 cases prosecutions were undertaken, in three-fourths of which convictions were secured; these figures show that less stringency was exercised in enforcing the forest laws against villagers, who are the chief customers for and consumers of forest produce. Fire was excluded from 94 per cent. of the 6,336 square miles over which fire protection was attempted, at a cost of 8½ rupees per square mile. The area under protection was 702 square miles larger than in the previous year. The area of failure was 6 per cent., against 1 per cent. in the preceding year, owing to the absence of rain from December 1893 to June 1894. No regular plantation work is attempted in the Central Provinces; natural reproduction of timber is said to be good in forests so long as grazing and fires are excluded. The animals sent into the forests to graze were 2,644,000, against 3,042,000 in the previous year; receipts from grazing dues sank from Rx. 51,600 to Rx. 43,200, because in three districts affected by dearth the levy of grazing fees was stopped for the whole or part of the year. The forest revenue of the year was Rx. 109,300, against an expenditure of Rx. 84,200, leaving a surplus of Rx. 25,000. A decrease of Rx. 9,600 in the revenue was caused by a general reduction of rates charged for bamboos, and minor produce removed from the forests by consumers; the rates were reduced with the view of suiting the forest system to the capacities and convenience of the people.

Assam.

The reserved forests in Assam were increased by 57 square miles, bringing up the total area to 3,683 square miles; besides 7,019 square miles of unclassed

State

State forests. No forest surveys were made during the year; but permanent working plans were completed for 522 square miles of the Goalpara Sâl forests. Fire protection was attempted over 1,153 square miles, and fires occurred in 59 square miles, or 5 per cent. of the protected area; most of the reserves consist of evergreen forest, wherein fire protection is not needed. The boundaries of reserves are mostly streams, rivers, and roads; out of 1,191 miles of artificial boundary line, 1,108 were cleared and properly maintained during the year. The plantations planted with rubber, teak, sissoo and other trees, now cover 2,300 acres, of which 41 acres were stocked during the year. The oldest trees of the rubber plantations were put in 20 years ago, and many of these have attained a height of 50 to 67 feet and a girth of 6 to 10 feet; special inquiry showed that the rubber plantations could hardly prove remunerative, and so their further extension has been stopped. Natural reproduction and growth of forest trees is said to be satisfactory in upper and middle Assam and in Cachar, but is irregular in the Sâl forests of Goalpara and the Garô Hills. The yield of the Assam forests shows a large increase, the total out-turn of timber and firewood being 6,663,000 cubic feet, as compared with 4,611,000 in the preceding year; the increase was due to an enhanced demand by purchasers, who removed 1½ million cubic feet of timber more than in 1892-93. The free grants of timber showed an increase of 327,000 cubic feet, or 14 per cent. The export of rubber from Assam increased from 3,281 maunds in 1892–93 to 3,515 maunds; but it is still far below the totals of earlier years. The quantity of bamboos taken from the forests during the year showed a decrease of 8 per cent. The forest revenue was Rx. 48,850, and the forest surplus was Rx. 22,027, or Rx. 10,151 more than in 1892–93. FORESTS.

The forest area of Berar is 4,157 square miles, of which 1,480 are reserved for timber and fuel, 64 for fodder and thatching grass, and 2,364 for pasture, while 249 square miles are temporarily reserved for pasture. The total reserved area has been reduced by 76 square miles owing to disforestation for purposes of cultivation. Surveys and working plans for 1,009 square miles are being prepared, and 448 square miles of the timber and fuel reserves have still to be undertaken. Fires were excluded from 1,350 square miles out of 1,389 square miles over which fire protection was attempted; the cost of protection was 8$\frac{3}{7}$ rupees per square mile. Natural reproduction is satisfactory in the closely reserved timber and fuel forests; it is fairly good in the grass reserves; but it is very poor in the tracts open for pasture. The yield of timber increased from 416,000 to 645,000 cubic feet; there was a small decrease in the amount of fuel and bamboos, and an increase in the output of grass. The gross receipts were Rx. 47,947, and the net revenue was Rx. 21,516, compared with Rx. 43,220 and Rx. 18,256 respectively in the previous year. Reported offences against the forest laws were 776, against 924 in 1892-93; 116 cases were prosecuted, 660 cases being compounded. Natural reproduction shows a marked advance in the Ellichpur Division, where the soil is good and where there is adequate protection against fire and grazing. Berar.

An area of 1,350 square miles was added to the reserved forests of Madras during the year 1893–94, bringing the total area of reserves up to 10,786 square miles. The business of settling claims in reserved forests goes slowly on, and much of this has still to be done. There are about 7,200 square miles of other Government forests from which reserves have still to be selected. Permanent marks were placed along 2,355 miles of reserves boundary, as compared with 2,837 in the preceding year; and 3,482 miles of preliminary demarcation work were also done. Surveys of the reserves were continued by the Survey of India in the Salem and North Arcot forests, and 881 square miles were completed. No new working plans were prepared; but statistics and information were being collected for working plans in several reserves; meanwhile, for many of the forests and for the plantations on the coast temporary working plans are being carried out. Fire protection was attempted over 5,044 square miles, of which 94 per cent. were successfully protected, against 95 per cent. in the previous year. The cost of fire protection averaged nine rupees per square mile for the year ending 30th June 1894. Natural reproduction was satisfactory in the Sâl forests and in most of the northern forests, but was unsatisfactory in the teak forests and in the mixed forest of the Ceded Districts. In some of the Godavari forests reproduction was seriously checked by fires. The additions to the plantations were 425 acres, chiefly in the southern districts; the total area Madras.

of plantations was returned at 21,299 acres, besides 27,166 acres of groves and 7,638 acres of other tree cultivation. The valuable timber plantations consist of teak in Malabar, eucalyptus on the Nilgiri and Palni hills, and casuarina on the eastern coast. The yield of the forests according to the returns was 3,072,496 cubic feet of timber, and 12,184,996 cubic feet of fuel, besides 25 million bamboos and other minor produce; the timber, bamboos and fuel all gave larger out-turns than in 1892–93. The forest revenue was Rx. 194,000 against an expenditure of Rx. 137,000, leaving a surplus of Rx. 57,000, or Rx. 26,000 more than in the previous year. The increase in revenue is ascribed partly to an advance in the demand for fuel and sleepers by the railways, partly to an improved local demand and better sales consequent on a more favourable season all over the province.

The area of reserved forests in Bombay was 10,735 square miles, or 414 more than in the preceding year, 1892-93. The protected State forests outside the reserves were returned at 3,364 square miles. Forest surveys were carried out over 487 square miles of reserves; working plans prepared for 282 squares miles of reserves during the year. The number of prosecutions for forest offences was 2,555, against 2,461 in the previous year, and 1,717 offences were compounded by competent officers under the law, as compared with 15,330 cases compounded in 1892–93. Fires traversed 749 square miles, or 33 per cent. of the forests of the northern circle over which fire protection was attempted; in the central circle 189 square miles, or only 3 per cent. of the forest area, were traversed by fire; in the southern circle 26 square miles suffered from fire out of 1,320 square miles over which protection was attempted; 12 square miles out of the 976 square miles of Sind forest reserves were burnt. Natural reproduction is said to have been satisfactory in all reserves by reason of the good rainfall and of the effective protection against forest fires. The regular plantations increased from 6,683 acres to 8,959 acres, while cultural operations extended over 344,380 acres of hill-side against 319,420 acres in the previous year. There was a large increase in the yield of teak and other timber from the forests of the southern circle, and in the firewood extraction in three circles. The total receipts of the four forest circles of Bombay were Rx. 377,000, against an expenditure of Rx. 208,000, leaving a surplus of Rx. 169,000, or Rx. 33,000 more than in the previous year.

The area of reserved forests in Coorg was 114 square miles, being the same as in 1892–93, besides 777 square miles of protected forests. During the year 371 miles of old boundary lines were cleared, and 120 miles of old lines were widened. Additions of 65 acres were made to the plantations of sandal, teak, and firewood, which now cover 2,142 acres. Fire was excluded from 189 square miles out of 208 square miles over which protection was attempted. Surveys were made in detail of 42½ square miles of reserved forests. There was an increase in the quantity of timber and a decrease in the quantity of sandal wood extracted by departmental agency. The forest receipts fell from Rx. 18,067 to Rx. 17,378, and the charges rose from Rx. 7,309 to Rx. 8,689; the surplus fell from Rx. 10,758 to Rx. 8,689; the increase of charge was incurred on the preparation of surveys and working plans.

IX.

AGRICULTURE AND MINERAL RESOURCES.

Agriculture.

In every large province of India an Agricultural Department has been organised, which is charged with the duty of supervising the maintenance of the village records of land tenures, rent, produce, and land transfers, and with the work of organising and directing State undertakings for the furtherance of agriculture, and for the improvement of stock. The Agricultural Departments also keep the public and the Government informed concerning the condition and the out-turn of the crops, the range of prices, and the approach of dearth or famine in any particular tract.

Bengal.

The rainfall of 1893–94 in Bengal was considerably above the average throughout the province. The excess was greatest in Eastern Bengal, where excessive rain and floods injured, and in places destroyed, the autumn and winter crops. In all other parts of the province the year was prosperous and the crops were good. The prices of staple food grains fell in Behar, Orissa, Central and Northern Bengal. In Eastern and Northern Bengal the jute crop suffered from the excessive rain.

Agricultural experiments.

The Local Government do not speak favourably of the results of efforts made to extirpate febrine and other diseases of Bengal silkworms; or of the agricultural experiments made by Government officers on the Doomran and Burdwan estates; or of the experiments with manures, with deep-ploughing, with selected and imported seed, and with agricultural machinery. The results of these experiments were varied; but it is said that the experiments have no effect on the ways and proceedings of the ryots around. The effort to promote emigration from over-peopled Bengal to under-peopled Burma had little effect; only 32 persons, including seven infants, emigrated to Burma during the year, as compared with 315 persons, including 33 infants, in 1892–93.

The 107th Annual Report of the Calcutta Botanical Gardens shows that more than 16,000 specimens were added to the herbarium, including contributions from the Kew Herbarium, and from other herbaria in Europe, Asia, Africa, and Australia. As many as 12,517 named specimens were issued to the principal herbaria in Europe. Two Mahomedan collectors attached to the gardens visited, and made valuable collections of plants in, Assam and Upper Burma.

North Western Provinces and Oudh.

The process of reorganising the village accountants, systematising their work, and improving their position has now been completed in many districts of the North Western Provinces, and is being carried on in others. It has been found possible to give better salaries to these most useful village servants, and to make less sweeping reductions than were at first proposed. The village papers are becoming gradually more correct and more practical. Effort is being made to educate by degrees all the supervisors of village records (kanungos) at the technical school established at Cawnpore. A manual of survey and land records is being issued in the vernacular for the guidance of village accountant surveyors (patwaris). The more important village statistics and facts are being abstracted and digested into subdivisional and district registers, which are intended to form handbooks of reference regarding the fiscal, economic, and social circumstances of the area concerned.

The persevering treatment of *usar*, or salt-impregnated lands, in the Cawnpore and Aligarh districts has proved that such lands can be reclaimed and restored to fertility by deep-ploughing, embanking, and planting with trees and selected grasses. Landholders and ryots around are now taking example by the Government proceedings, and are trying to reclaim their *usar* lands. Meanwhile the Government reclamations are being kept as plantations and grazing grounds.

On the five private experimental farms a valuable example was given of the reclamation of ravine land by terracing and embanking operations of a simple and practical kind; fuel reserves were tried; improved varieties of seed were introduced, and systematic horse-breeding was promoted.

AGRICULTURE.

The length of avenues planted along roadsides during the year was 195 miles, whereby the total length of avenues in the Provinces was raised to 7,799 miles. Many of these avenues consist of grand, shade-giving trees. A new manual of instructions dealing with the planting and maintaining of avenues, and the selection of trees suitable to different circumstances, was issued during the year. Many of the local boards gave much attention to the work, and in 10 districts the landholders gave valuable assistance. Rx. 7,223 were spent on extending and maintaining avenues, and Rx. 4,194 were realised by the sale of fellings, loppings, fruit, &c.

The Seharunpore and Mussorie Botanical Gardens enjoyed, on the whole, a favourable season, though the rainfall was unusually heavy. The yield of all fruits was very large, with the single exception of grapes, which failed. The demand for trained gardeners continues to be large; five were sent out from the gardens during the year, but more were wanted. Difficulty is found in getting apprentices for the trade; a trial is being made with lads from the Bareilly Reformatory. The number of trees, plants, and seed packets sold or distributed was 106,443, or 11 per cent. above the previous year's supply, besides 39,050 packets of seeds. Some of the chief successes of the year were with Florida peaches, American maize, and with flower bulbs. Attempts to grow sugar-cane from seed failed again, though seeds were sown on various dates and in several kinds of soil. The two gardens cost Rx. 2,057, and their receipts, including credits for supplies of drugs to medical depôts and to soldiers' gardens, were Rx. 2,672.

The season was very favourable, and the Lucknow Horticultural Gardens covered 96 per cent. of their cost, by realisations from the sale of trees, plants, seeds, and produce. The number of fruit trees, ornamental trees, and packets of seed distributed in the Provinces from these gardens was 18,197, or 35 per cent. less than in the preceding year. There was a large decrease in the demand for ornamental trees and plants for parks and gardens.

On the Cawnpore experimental farm, managed by a Mahomedan officer trained at Cirencester, no new experiments were attempted, but the standing series of experiments was continued. The spring crops gave an exceptionally high yield. Among other practical results it was proved that early sowings of maize were, as had been shown in former years, advantageous.

It is reported that in the North Western Provinces there is "a growing belief in the possibility of agricultural improvement, and an increasing willingness to give a fair trial to novel methods and appliances." Several experiments are reported as affording practical teaching by successful scientific agriculture; dairies, managed on the European system, are being worked with excellent results at Aligarh and Lucknow; but the demand for good milk and butter has not yet been fully met.

The Director of Agriculture, in his remarks on the grain traffic of the Provinces, claims that the great export of wheat in 1891–92 did not unduly diminish the food supply of the people. In 1890–91 the net exports of wheat were only 14,000 tons; in 1891–92 they were 357,000 tons, but the excess is less than the difference between a good and a bad wheat harvest. It is claimed that even in 1891–92 the people only exported surplus produce that they could well spare.

It has been stated on a previous page that the crop area of the year was unusually large, 25 per cent. broader than in the preceding year, and that the harvests were excellent all round. Prices fell, food was cheap, especially the coarser grains consumed by the poor; the export demand for wheat was unusually small; and in April 1894 the average price of wheat all over the Punjab was little more than half the average of April 1893. The double-cropped area was 12½ per cent. of the whole cultivated land. The business of improving the land records and training the rural accountants (*patwaris*) was actively prosecuted. The number of patwaris who had not qualified in surveying and land-recording fell from 246 to 195; of the supervisors, or kanungos, only 17 were unpassed, and the standard of recruits for this duty had considerably risen. The number of village records prepared and filed by the prescribed date rose from 28,870 to 32,041.

Punjab.

The quinquennial table of rates of wages for the Punjab was published during the year. The figures do not differ materially from those contained in the last Return for 1888–89. Special causes have occasioned variations of wages in special

special localities, but the provincial average is much the same as it was five years ago. The rates of hire for carts are practically unchanged; the rates for camels have risen slightly. Rents are paid in cash on 1,944,000 acres, and the average cash rents for the Province are 3 rupees 5 pie (Rs. 3 026); but the variations from district to district are very great. Rents paid in kind for irrigated lands range from $\frac{1}{3}$ to $\frac{2}{3}$, and average 37 per cent. of the gross produce; on unirrigated lands they range from $\frac{1}{3}$ to $\frac{1}{4}$, and average 41 per cent. of the gross produce. AGRICULTURE.

The only agricultural machines of foreign make that are in any degree popular in the Punjab are the iron mills for expressing sugar-cane juice. In parts of the southern districts these mills are said to be driving out the indigenous wooden sugar mill.

Reports concerning agriculture in the Central Provinces during 1893-94 have not yet been received; the latest information available on the subject is, therefore, that which is summarised on page 93 of last year's Statement. Central Provinces.

The rains were scanty towards the end of the season in Lower Burma, and the rice crop was somewhat below the average. The total area under rice was 5,183,000 acres, which was 91 per cent. of the total area under all crops, 5,701,000 acres. The increase in the area was nearly 2 per cent., considerably below the rate of increase in previous years. The exports of rice by sea to places outside Burma was 1,141,000 tons as compared with 1,285,000 tons in the year 1892-93, which latter exceeded the amount reached in any previous year. In Upper Burma the rainfall was sufficient, and the harvest was better than had been known since 1886. The price of rice fell considerably in all parts of the combined provinces; and the price in Rangoon was lower than had been known for several years. Burma.

The experimental farm, with its flocks and herds, at Lashio in the Northern Shan States was closed, as it had been unsuccessful for successive years. In the Southern Shan States much success was achieved with the experimental orchard and garden at Toungyee; the difficulty is now to find a market for the produce. The wheat farmers in the Shan States got poor crops; but it has been shown that wheat can be grown to advantage on the loams of the Shan valleys. Foreign potato seed is being distributed, and it is hoped that Shan potatoes, which are now very small, may be improved. American tobacco seed and American maize seed were imported and distributed, but as yet the result of these operations is small. Fifteen veterinary assistants were employed treating cattle disease in the interior; of these six are reported to have done satisfactory work. Though anthrax and rinderpest both appeared in epizootic form, the mortality among cattle is reported to have been about normal.

The rainfall of Assam was below the average of previous years, but its distribution was seasonable. The rice crop was generally good, and the season was favourable for tea. Prices of food continued to rule high. In some districts cattle disease was rife, the number of deaths reported being 153,000, or nearly up to the high level (154,000) of the previous year. Assam.

Crop experiments have been carried on as in preceding years. The chief results with rice have been that the average yield per acre of rice in husk was, in the Brahmaputra Valley from 1,260 to 1,590 lbs. according to the variety planted, in all cases considerably above the previous year's yield. In Sylhet the average yield was 1,136lbs. for early rice, and 1,505 lbs. for later varieties, or about the same as in 1892-93. The net result of sugar-cane experiments up to date has been to show that cane yields juice equal to 47·36 per cent. of its weight; the juice yields 17·32 per cent. of its weight of "gur" or molasses; and the yield of "gur" per acre is 1,443 lbs. The average yield of linseed per acre for 1893-94 was 312 lbs.; of sesamum 280 lbs.; and of mustard 626 lbs.; those yields were somewhat above those of the preceding year.

The season in Madras during 1893-94 was favourable, except in parts of three districts; the early and the later rains were both copious, but the rain ceased at the end of November, and the lack of December showers did some harm. Crops were on the whole good, notwithstanding destructive floods in some parts. The total crop area, so far as returned, was 27,031,000 acres as compared with 26,116,000 acres in 1892-93, and 25,474,000 acres, the average of the preceding five years. There was a general fall in the price of food grains, both rice and millets, as compared with the previous year; though prices were still considerably dearer than the average of the 10 years, 1880-90. Madras.

AGRICULTURE.

The advances to ryots, for improving their lands, fell to Rx. 45,000, as compared with Rx. 195,000 during the two previous years of partial scarcity. There was less cattle disease, and fewer cattle deaths were reported than usual, but the reported cattle deaths are still very far below the truth. The Land Records Department trained 5,604 village accountants in the surveying and demarcation of fields at a cost of less than six rupees per head; and 565 out of the 619 Revenue Inspectors in the Province have also been trained to survey lands and correct land records. The trained village accountants are now taking a large share in the resettlement of Trichinopoly and parts of three other districts. The compilation of rural statistics has been completed for 10 districts, and is well forward in the remaining 11 districts; this work will be of great use at the revision of assessments about to be undertaken as the existing thirty-year settlements expire. In Bellary and the black-soil lands of the four Ceded Districts, the ryots are taking to the use of heavy iron ploughs, costing 60 rupees each; 89 of these ploughs were counted by the Agricultural Inspector in nine villages near Bellary, and a blacksmith of that town has ordered a further supply of iron ploughs from Sweden. Agricultural instruction and farms for practical instruction were in abeyance pending orders on Dr. Voelcker's Report on Indian Agriculture.

The Report for 1893-94 on the public gardens and parks of the Nilgiri hills shows that 2,000 lbs. of dried jalap tubers were supplied to the Medical Department from the gardens at a cost of 12 annas a pound, or 40 per cent. below the price at which they could be procured in the market; that 195 lbs. of dandelion root was similarly supplied at a cost of 6 annas a pound, and that half an acre has been put down with seedlings to meet a further demand for *taraxicum*; and that the coca (*erithroxylon coca*) grows and fruits on the Nilgiri hills.

The rainfall in Bombay was above the average, and was fairly seasonable, though in some parts the autumn crops suffered from storms; the harvests of the year were on the whole better than usual, the abundance of the spring harvests more than compensating for the partial loss of autumn crops. Prices of wheat and other spring cereals fell; millets and rice, which are autumn grains, were dearer in parts. The net cropped area was 731,000 acres, or two and a half per cent. less than in the preceding year, owing to the contraction of autumn sowings caused by excessive rain.

Bombay.

Among results obtained at the Poona demonstration farm may be mentioned that the ordinary millets and sorghums commonly grown are the most satisfactory fodder crops, more especially the sundhia jowari (sorghum cernuum) which flowered in 48 days from the date of planting, that lucerne and reana do not answer so well; that jowari (millet) benefits greatly from rotation with pulse; that the giant millet of Guzerat is superior to the ordinary millet of the Deccan; that potatoes grown three or four times in the Deccan do not resist disease so well as those grown from newly imported seed; that Italian potatoes do not yield so good a crop as English potatoes; that exotic cottons quickly degenerate, and the best hope of improving the staple is to develop, by selection and hybridization, indigenous varieties; that organic manures must be thoroughly decayed or dissolved before application to Deccan soils; that there is much economy and safety in the native plan of growing mixed crops. The dairy at Poona, with 18 cows and 30 milch buffaloes, was a success during the year; it supplied good milk and butter to the troops and to local purchasers, and it yielded a profit of Rx. 225 for the year, without any credit for manure used by the farm. The demand for good dairy produce still largely exceeds the supply, and private people at Bombay and Poona are opening dairies with improved appliances and management after the model of the Government dairy at Poona. Aden cows, full and half-breed, continue to be the best milkers. But the milk supply depends much on a plentiful provision of green fodder for the cows during the dry season. The largest average yield given by any cow on the Poona farm was seven and a half quarts a day, and by a milch buffalo eight and a half quarts.

Government loans to cultivators for permanent improvements and the purchase of seed and cattle, amounted to Rx. 58,000, or Rx. 5,000 less than those in 1892-93. The Local Government again reports that cases of misapplication of these loans have been very rare. Successful horse shows were held during the year in Sind, the Deccan, and Guzerat. In all, 3,544 horses were exhibited, against 3,350 in 1892-93, and Rx. 765 were distributed in prizes, out of which Rx. 460 came from provincial funds.

The

The rainfall of the year in Berar was much below that of the preceding year, but only a little below normal; it was for the most part seasonable, and the yield of staple crops was above that for 1892–93, except in the case of gram and linseed. Cotton, which covers one third of the Berar cultivated area, was 50 per cent. better than in the previous year; millet (jowari), the chief food staple, and wheat also gave good harvests; and the price of food was distinctly lower than in 1892–93. The total occupied area rose to 7,766,000 acres from 7,743,000 in the previous year; of the former total 87·4 per cent. was under crop in 1893–94, as compared with 87·9 per cent. in the previous year. Agriculture. Berar.

HORSE BREEDING, AND VETERINARY COLLEGES.

In 1891–92 the Civil Veterinary Department took over the management of horse-breeding operations which were formerly under the direction of military officers. The staff of veterinary surgeons concerned with this business is distributed over the several provinces where horses and mules are bred. These officers in conjunction with the district authorities and local boards organise and control operations for combating cattle disease, and help to instruct Indian students at veterinary colleges. In some parts of India, as, for example, through the greater part of the Presidency of Bombay, a staff of inspectors is employed by the Department to revise the muster of mares branded as fit for use with Government stallions. The returns of agricultural stock are not complete for all provinces; but the total number of horses and ponies in British India is approximately about 1,300,000, while the number of mules and donkeys is about the same. The North West Provinces and Oudh return 474,000 horses and ponies, and 337,000 mules and donkeys; while the Punjab returns 536,000 mules and donkeys and 269,000 horses; and Bombay returns show 144,000 horses, and 63,000 mules and donkeys. The totals are considerably above those for the previous year, except in the North Western Provinces where the numbers fell off. The number of stallions kept by Government for horse-breeding in the year 1893 was 362, or 18 more than in the previous year. The most numerous class of stallions is that of the Norfolk trotters, of which there were 153, and the next is that of the Arab sires which number 124; the Norfolk trotters are popular with native horse breeders, and their stock win more prizes in proportion than the stock of any other class of stallion. Horse breeding.

The number of mares branded for use with Government stallions in the Bombay Presidency was 28,285 at the end of March 1893, of which 7,649 were registered for pony and mule breeding only. Eighty-seven horse and 24 donkey stallions were in active use during the year. Each horse stallion that was at work covered an average of 41 mares during the year; and the number of foals produced during the year was 1,356. The average number of foals dropped to each stallion employed during the year was 10½; thus about one-quarter of the coverings resulted in foals. The results were not so good as in the previous year, when the average was 12½. The number of donkey stallions remaining at the end of the year was 325, of which 155 were Italian animals. The number of mares covered by Government donkeys during the year was 16,722, and 3,759 mules were reported to have been foaled during the year, or 21 per cent. fewer than in the previous year. The proportion of foals to stallions to mares and to coverings was everywhere smaller, both for horses and for mules, than in 1892–93. From most of the horse and mule-breeding districts it is reported that a strong demand exists for more stallions. At the seven chief horse shows 5,598 animals, or five per cent. more than in the preceding year attended, and 97 remounts were bought at an average price of Rx. 25. The total charge of the horse-breeding department, including prizes, the cost of new stallions bought in India, was Rx. 32,600 as compared with Rx. 29,000 in the preceding year. In addition to this sum, the cost of horse and donkey stallions from Europe was Rx. 19,900.

In the Punjab the number of mares branded for horse breeding was 11,294. The number of horse and pony stallions at the end of the year was 169, and the number of mares covered by horse stallions was 5,564; and the average number of foals dropped per stallion fell from 15⅓ to 14¼. The number of mule foals dropped during the year was 15½ to each donkey stallion, as compared with 17 in the previous year. The number of horses, mules and donkeys brought to 16 fairs during the year rose from 20,950 to 26,260. The number of horses bought at the Punjab fairs for army remounts was 417, at an average price

HORSE BREEDING.

price of Rx. 17; and 172 mules were bought for Government. District boards and other bodies keep 30 stallions in addition to the Government stock; but it is said that they are not well managed, and their services are not valued by the people so highly as those of the Government stallions. Officers of the horse-breeding and remount departments attended at all the more important horse fairs, and the reports of the judges show that at most fairs the number and character of the young stock continue to advance. The total number of horses and mules brought to 26 of the chief horse fairs of Northern India was 55,048, as compared with 43,005 in the previous year. The number of horses bought at these fairs for mounted branches of the public service fell from 1,167 to 753, at prices ranging from Rs. 625 to Rs. 58, and averaging about Rs. 230; the highest average was at the Rawul Pindee fair in the Punjab, where 62 remounts were bought by Government at an average price of Rs. 387. A sum of Rx. 4,496 was expended in prizes at horse fairs, one half of which were contributed by local boards.

VETERINARY COLLEGES.

Colleges or schools for instructing Indian students in the art of treating diseases of horses and cattle exist at

Madras, Bombay, | Poona, Lahore, and Rangoon.

To each institution is attached a hospital for horses and cattle. The Lahore College had been in existence 6½ years; 280 passed students had left the college, and of these 260 are said to be employed on veterinary work; one or more qualified veterinary assistants is established in every district of the Punjab. During the year 1893–94 eighty-four students were under instruction, and 26 gained certificates as qualified veterinary officers. The standard of qualification was raised during the year, and second-grade certificates are no longer granted. Of the 49 students who entered the college during the year 19 were army students, and 11 held certificates from district boards or similar bodies. The other veterinary schools had from 40 to 80 students a-piece. The Rangoon veterinary school was re-opened recently after being closed for some years. Passed students from this school are mostly employed in treating diseased cattle, one veterinary assistant being posted to the head-quarters of each district, whence he works under the orders of the district board.

AGRICULTURAL PRODUCE.

WHEAT.

The ascertained and estimated area under wheat is given thus :—

	Normal Wheat Area for Recent Years.	Areas Cultivated with Wheat in	
		1892–93.	1893–94.
	Acres.	Acres.	Acres.
Punjab	6,569,000	7,020,000	8,265,000
North Western Provinces and Oudh	4,868,000	4,641,000	4,897,000
Central Provinces	4,090,000	4,197,000	3,927,000
Bombay	2,511,000	2,475,000	2,479,000
Sind	507,000	604,000	539,000
Berar	892,000	985,000	928,000
Bengal (estimated)	1,844,000	1,559,000	1,584,000
Rajputana (approximate)	1,562,000	1,604,000	1,646,000
Central India (approximate)	399,000	429,000	361,000
Rest of India (approximate)	3,492,000	2,915,000	2,756,000
TOTAL	26,734,000	26,429,000	27,382,000

The

The wheat harvest of 1894 varied considerably in different parts of India. Heavy rain in November spoilt the crop in Western and Central India; in two districts, Saugor and Damoh, the wheat crop failed entirely, and the failure caused widespread distress. In Bengal the crop was short by reason of absence of rain in the cold season. In the North-West Provinces and Oudh the wheat crop, which had till then promised well over an unusually wide area, was seriously injured by high winds and rust in February. In the Punjab the wheat harvest was excellent; the area sown with wheat was 25 per cent. above the normal breadth of wheat, and the crop was better than had been seen for more than 20 years. Wheat prices in the Punjab ruled abnormally low in the summer of 1894; on the 30th April the highest quotations for any district were 22 seers per rupee and the lowest were 38 seers; on the same date in 1893 the highest price was 10 seers and the lowest 15 seers per rupee. Prices were thus all over the Punjab about half the rates ruling at the same places in April 1893. The wheat exports of India for the past few years have been:— AGRICULTURAL PRODUCE.

1,047,000 tons in - -	1883-84	1,515,000 tons in - -	1891-92
1,053,000 „ - -	1885-86	749,000 „ - -	1892-93
677,000 „ - -	1887-88	608,000 „ - -	1893-94
689,000 „ - -	1889-90		

During 1891–92 the wheat exports rose greatly in response to a demand caused by the dearth in Eastern Europe. Since then the American crops have been abundant; prices in Europe have been low, and there has been less demand for Indian wheat. During the earlier part of the year 1894–95 the Indian wheat exports have shrunk further still.

The area under, and the yield of, the main oilseeds crops, namely, linseed, rapeseed, and mustard, for all India are given thus:— OIL SEEDS.

——	Normal Year.	1892–93.	1893–94.
Area in Acres - - - - - -	20,738,000	20,097,000	21,286,000
Yield in tons - - - - - -	1,644,000	1,573,000	1,385,000

The crop was good in Bombay, but in other provinces the harvest was injured by heavy rain in the spring, by rust and by insects. The yield was on the whole 30 per cent. below normal. The exports of oil seeds were far larger than in any previous years, and amounted to 1,211,000 tons, valued at Rx.16,754,000, as compared with 820,000 tons worth Rx.11,631,000 in the previous year.

The rice harvest in 1893–94 was up to the average in Bengal, but was below the average in Burma and Madras. The total normal area under rice in British Provinces is said to be about 66,000,000 acres, of which 37,000,000 belong to Bengal, 6,400,000 to Madras, and 6,100,000 to Burma. The total yield of British India in an average year may amount to 26,400,000 tons of cleaned rice. The quantity of rice exported from India and Burma beyond the sea was 1,233,000 tons, or 12 per cent. below the total of the preceding year, and 33 per cent. below the exports of 1891–92. There was also some shrinkage of rice prices compared with 1892–93. Two-thirds of the exports came from Burma; more than half the exports were sent to Europe, and most of the remainder to Ceylon and further Asia. The quantities of cleaned rice, as distinguished from cargo rice, despatched from Burma continue to increase, and constitute now two-thirds of the Burma exportations. RICE.

The Indian export duty of three annas per maund on rice yielded to the Indian Treasury Rx. 660,000 against Rx. 741,000 on the previous year, and Rx. 900,000 during the year 1890-91, the highest figure ever reached. Siam and Saigon, which with Japan constitute the only other considerable rice-exporting countries of the world, levy about the same rate of duty. The total exports from Siam and Saigon, in 1893 and 1894, to Europe were 198,000 and 159,000

AGRICULTURAL PRODUCE.

159,000 tons respectively, against Burma's exports to Europe of 738,000 and 678,000 tons in the two years, and Bengal's export to Europe of 44,000 and 79,000. During the same two years Japan sent to Europe 68,000 tons and 60,000 tons.

COTTON.

The area under cotton in India is returned at:—

	Normal Area.	1893-94.
	Acres.	Acres.
Madras	1,700,000	1,928,000
Bombay and Sindh	2,727,000	3,096,000
Bombay Native States (estimated)	2,666,000	2,830,000
North-West Provinces and Oudh	1,499,000	1,311,000
Punjab	762,000	939,000
Central Provinces	631,000	692,000
Berar	2,231,000	2,202,000
Nizam's Dominions (estimated)	1,300,000	1,500,000
Central India (estimated)	290,000	290,000
Rajputana (estimated)	548,000	588,000
Other Provinces (including Bengal) and Native States (estimated)	1,335,000	1,335,000
TOTAL	15,589,000	16,705,000

The season was not favourable for cotton, and the yield was below the average everywhere, though it was 15 per cent. above the yield of the previous year. The short harvests were due mainly to heavy or unseasonable rain. The total yield of cotton in British and Native India, at an average rate of three-quarters of a cwt. per acre, would be about 12,219,000 cwts. The prices of cotton averaged 4 per cent. above the prices ruling in 1892–93, but they have fallen again in 1894-95. The area under cotton in India, despite successive bad seasons, continues to be very large. Cotton is the most important non-food crop next to oil seeds, which have during the past two years covered a larger area and yielded a crop of more value than cotton.

It was found, on careful inquiry in Bombay, that the power mills of India now spin about 377 million lbs. of yarn yearly, of which 170 million lbs. are exported as yarn, 129 million lbs. are sold for hand-loom weaving, and 74 million lbs. are used for mill-weaving in India. At the rate of 77 lbs. of yarn to every 100 lbs. of raw cotton, the Indian mills would thus consume yearly about 4,321,000 cwts. of cotton. The cotton exports range from 4½ to 6¼ million cwts. a year. Thus there might be left in an average year nearly 2 million cwts. of raw cotton for the use of cottage spinning-wheels all over India.

The exports of raw cotton from India were:—

1884–85	5,066,000 cwts.,	valued at Rx.	13,286,000
1888–89	5,331,000 „	„ „	15,046,000
1889–90	6,325,000 „	„ „	18,669,000
1891–92	4,424,000 „	„ „	10,754,000
1892–93	4,789,000 „	„ „	12,743,000
1893–94	4,790,000 „	„ „	13,302,000

The

The cultivation and the production of tea in India for the last three years show :—

	Area growing Tea, in Acres.		
	1891.	1892.	1893.
Bengal	90,815	92,852	110,510
Assam	241,823	247,192	254,126
Madras	5,481	5,694	5,600
North-Western Provinces	9,374	9,374	9,400
Punjab	9,011	9,091	9,237
TOTAL	354,504	364,203	388,873

The yield of tea per acre was returned at 443 lbs. in Assam, against 394 lbs. in the previous year, and at 329 lbs. per acre in Bengal, or 17 per cent. less than in the previous year. In the submontane tea gardens of Darjeeling scarcity of labour is said to have been a serious drawback to the tea industry. The tea yield was good in Assam by reason of the favourable weather; but prices were lower than in the previous year. The total exports of Indian tea are returned at,—

78¾ million lbs. in	1886–87	120 million lbs. in	1891–92
107 „ „	1890–91	114¾ „ „	1892-93

126½ million lbs. in 1893-94.

The value of India's tea exports in 1893-94 was Rx: 6,586,000, or Rx. 293,000 more than in 1892-93. Australia took 5 per cent. of India's tea exports, against 3 per cent. in 1891-92; 2½ per cent. was sent to Persia, and the rest went to the United Kingdom. The quantity of Indian tea sent direct to the United States and Canada was only 229,000 lbs., while 112,000 lbs. went to China.

According to the British returns the importations of tea into the United Kingdom have come from China, India, and Ceylon in the following proportions:—

In the Year	From China.	From India.	From Ceylon.
1865	93 per cent.	2 per cent.	0 per cent.
1875	86 „	13 „	0 „
1885	66 „	30 „	2 „
1892	24 „	47 „	27 „
1893	22 „	46 „	29 „
1894	18 „	48 „	31 „

In 1894 tea from China was imported at an average price of 7·84*d.* per lb., while Indian tea averaged 10*d.* per lb. and Ceylon tea 10*d.* per lb.

AGRICULTURAL PRODUCE.

COFFEE.

The area under coffee shows a small increase, as compared with the previous year's figures, thus:-

	1888.	1892.	1893.
	Acres.	Acres.	Acres.
Coorg - - - - - -	82,335	59,985	78,427
Madras - - - - - -	56,094	68,209	59,156
Mysore - - - - - -	113,116	125,747	127,427
Travancore, Cochin, &c. - -	8,751	5,827	5,824
TOTAL - - -	260,296	259,468	270,834

The normal yield of coffee per acre may be taken at from 3 cwts. for the best European plantations in full bearing to ½ cwt. for inferior Native plantations. The coffee crop of 1893 was good in Coorg, where the yield was 27 per cent. above that of 1892, and 14 per cent. above the average of the preceding five years; while prices remained high. The total coffee exports from India were 278,735 cwts. in 1893-94, as compared with 296,617 cwts. in the previous year, and 311,864 cwts. in the year 1891-92.

CINCHONA.

Bengal.

On the Government plantations of the Darjeeling district in Bengal there were, at the end of the year, 3,572,000 cinchona trees, or 500,000 less than in the preceding year. Of the existing trees, four-fifths are of the pure quinine-yielding variety, and one-fifth belong to the cinchonine-yielding variety. During the year 698,000 trees, mostly dwarfed and feeble, were uprooted for their bark, or died, while 184,000 were planted out; all the new plantations have for some years past consisted of quinine-yielding varieties. The harvest of dry bark was 330,000 lbs. The factory produced during the year 3,848 lbs. of cinchona febrifuge and 4,765 lbs. of sulphate of quinine. Quinine is now sold to public institutions and Government offices at 13 annas per ounce, while the febrifuge is sold at 8 annas per ounce. The issues from the factory were 4,200 pounds of febrifuge, and 6,916 pounds of quinine. These issues with the sales and issues of medicine during the year yielded a profit of Rx. 112, after meeting all charges for maintaining the plantations, renewing plant, and working the factory. The capital cost of the plantation had been repaid by the sale of cinchona drugs in previous years. During the year 1893, 1,490 lbs. of quinine, as compared with 475 lbs. in the previous year, were put up in 5-grain doses; each dose is carefully packed, and bears simple instructions in one of the vernacular languages of Bengal. The packets are made up by the jail department; and they are issued to local post-masters, who, for a small commission, retail them to the public at one pice (one farthing) per packet or dose. When this plan is more thoroughly adopted in all provinces, the demand for quinine, thus brought in convenient shape, and in an absolutely pure state, to the doors of the people is expected to increase indefinitely. The issues of quinine and febrifuge during the past year were 26 per cent. in excess of the produce. In order to meet the growing demand, the Government bought an adjoining plantation, containing 1,000,000 quinine-yielding trees, with a quantity of stored bark and of prepared quinine. The quinine was all sold to the public before the end of March 1894; the stock bark has been moved to the factory; and the trees will be gradually uprooted in subsequent years. The total price of the plantation, with all its stock, was Rx. 16,600, payable in three instalments.

Madras.

In the Government plantations on the Nilgiri Hills, in Madras, the cinchona trees are mostly of the quinine-yielding varieties. The rainfall and season of the year 1893-94 was decidedly favourable for cinchona cultivation on the Nilgiri Hills. The plantations and nurseries were kept in good order; but there was no demand from outside for seed or for plants. The stock of dry bark in hand at the beginning of the year was 662,000 lbs.; the harvest of the year

year was 83,000 lbs.; the consumption of the factory was 175,000 lbs., and 2,700 lbs. were issued in the shape of bark. The produce of the factory during the year was 2,000 lbs. of quinine, and 5,775 lbs. of cinchona febrifuge; 2,536 lbs. of the former, and 3,514 lbs. of the latter were sold or issued to Government and municipal or local departments. The number of quinine 5-grain packets issued for sale in the interior of districts rose to 334,000, from 170,000 in the previous year. The expenditure on the plantations during the year was Rx. 7,300, and the receipts, inclusive of the packets sold by collectors, on account of quinine and febrifuge, were Rx. 7,200. AGRICULTURAL PRODUCE.

The area under cinchona for all India is returned at 14,655 acres, of which 3,261 acres are Government plantations; the private plantations are mainly in the Madras Presidency. The exportation of cinchona bark from India by sea, which was 3,074,000 lbs. in 1888–89, and 2,814,000 lbs. in 1892–93, fell to 1,665,000 lbs. in 1893–94.

Bengal continues to be, as heretofore, the only province that produces jute to any considerable extent. The seasons of 1892 and of 1893 have not been favourable to the jute crop. The normal jute area of Bengal is returned at 2,305,000 acres; and the areas under jute in 1893 and 1894 respectively are given at 2,222,000 and 2,326,000 acres. The yield of 1893 was put at 15 per cent. short of an average crop; while the out-turn of 1894 is expected to be slightly above an average crop. Prices of jute are likely to be much lower than they were in 1893-94. The fluctuations of the jute trade during recent years have been as follows:— JUTE.

YEAR.	Exports of				TOTAL.
	Raw Jute.		Gunny Bags and Gunny Cloth.		
	Cwts.	Value, Rx.	Number of Bags, and Yards of Cloth.	Value, Rx.	Value, Rx.
1883-84 - - -	7,018,000	4,592,000	70,695,000	1,334,000	5,926,000
1887-88 - - - -	9,643,000	6,040,000	88,050,000	1,746,000	7,786,000
1889-90 - - - -	10,256,000	8,639,000	134,660,000	2,791,000	11,430,000
1891-92 - - - -	8,532,000	6,848,000	143,540,000	2,513,000	10,084,000
1892-93 - - - -	10,537,000	7,944,000	164,034,000	3,238,000	11,182,000
1893-94 - - - -	8,691,000	8,526,000	191,937,000	3,434,000	12,125,000

The normal area under indigo in India is about 1,100,000 acres, of which one-half belongs to Lower Bengal, about one-quarter to the Panjab and North-West Provinces, and nearly one-quarter to Madras. The indigo area of 1893-94 was much above the average, especially in Northern India, where the breadth of indigo was double that of 1891. The crop was up to or above the average all round, except in Madras. Prices fell, and the average Calcutta price of the year was Rx. 27½ per maund, against Rx. 31 in the previous year. Still, the season was highly favourable for the indigo industry. The total exports of the past five years have been:— INDIGO.

	Cwts.		Rx.	
1888-89 - - -	142,000	valued at	3,949,000	Exports by sea, besides about 4,500 cwts. annually exported across the land frontiers of India.
1889-90 - - -	157,000	„	3,863,000	
1890-91 - - -	118,000	„	3,073,000	
1891-92 - - -	125,000	„	3,214,000	
1892-93 - - -	127,000	„	4,141,000	
1893-94 - - -	131,000	„	4,182,000	

MINES AND MINERAL RESOURCES.

MINERAL RESOURCES.

Coal.

There was again an important increase in the production of coal in India. The output for the last three years from the principal coalfields has been—

	Coal produced in	
	Average of Previous Three Years.	1893.
	Tons.	Tons.
Bengal	1,764,000	1,871,000
Central Provinces	136,000	135,000
Assam	155,000	164,000
Punjab	56,000	77,000
Baluchistan	13,000	20,000
Rewah State	79,000	94,000
Nizam's Dominions	140,000	157,000
TOTAL	2,347,000	2,529,000 Valued at Rx. 860,000

The total yield of Indian coal seven years ago, in 1886, was 1,389,000 tons; during the same period the importations of coal by sea have decreased from 849,000 tons in 1886 to 648,000 tons, valued at Rx. 1,141,000, in the year 1893; of this 95 per cent. came from the United Kingdom. During the year 1893 Bengal coal was exported by sea to Burma, 89,000 tons, to Madras, 61,000 tons, and to Bombay, 46,000 tons.

Iron.

Iron is smelted on a small scale as a village industry in many parts of India; and iron ore of surpassing richness is found in the Central Provinces, in Madras, and in other parts. The Barrakur iron works, which possess coal, iron, and lime close to the works and on the main line of railway about 150 miles from Calcutta, are the only establishment in India where iron ore is treated after European fashion. This company turned out during the year 18,141 tons of pig iron and 4,240 tons of castings; they sold during the year 18,268 tons of pig and 4,101 tons of casting. The out-turn of pig iron in the previous year was 10,047, and the increase of 80 per cent. was satisfactory. But the whole value of the company's output was about Rx. 57,000 as compared with India's iron imports valued at Rx. 929,000. The company found a market for all their output of the year. The capital expenditure of the company up to September 1893 was Rx. 207,000, and during the year then ending they had realised a profit of Rx. 8,500 on their sales of pig, and Rx. 6,000 on their sales of castings; the total profit on the working of the year in India came to 7 per cent. on the total capital, against 10¼ per cent. in the preceding year.

Earth Oil.

The production of petroleum from the principal oil fields has been returned thus:—

	Produced in			
	1888.	1891.	1892.	1893.
	Gallons.	Gallons.	Gallons.	Gallons.
Burma	2,794,000	5,793,000	8,698,000	10,276,000
Baluchistan	34,000	138,000	3,000	—
Punjab	2,000	2,000	2,000	2,000
Assam	—	23,000	22,000	82,000
TOTAL	2,830,000	6,136,000	8,725,000	10,360,000

In Upper Burma a further increase of yield was obtained from the Yenangyaung field by the Burma Oil Company, which has been at work in the Yenangyaung field for about 19 years, and which possesses a refinery in Rangoon, and has a staff of skilled American oil-workers. Up to the end of the year other parts of the Upper Burma oil-field had not been successfully worked by the concessionaires. No production is reported of the Baluchistan oil, which was formerly used as fuel for engines on the State railway. The Assam oil sources gave a largely increased yield, and the production may expand largely when the railway reaches the oil-bearing tract. MINERAL RESOURCES.

Though the output of Indian and Burmese oil has quadrupled in the past five years, still the importations of earth-oil into India by sea continue to increase, thus:—

IMPORTATIONS of Mineral Oils into India.

	1883-84.	1889-90.	1892-93.	1893-94.
	Gallons.	Gallons.	Gallons.	Gallons.
From United States - - - -	12,714,697	35,862,120	26,265,000	49,226,000
„ Russia - - - - -	—	15,961,875	38,087,000	34,045,000
„ elsewhere - - - -	1,169,141	1,546,163	2,481,000	395,000
TOTAL - - -	13,883,838	53,390,158	67,086,000	83,666,000

The employment of tank steamers began in 1893, but as yet comparatively little oil is imported in bulk. In 1888-89, 40 millions of gallons were valued at Rx. 1,860,000, whereas in the past year 84 millions were valued at Rx. 3,276,000, showing a fall of 14 per cent. in price during the six years.

The gold industry in Mysore continues to advance, but down to the end of 1894 only four companies had produced any considerable quantity of gold. The results of eight companies working in Mysore during the recent years have been:— Gold.

	1888.	1892.	1893.	1894.
	Ounces.	Ounces.	Ounces.	Ounces.
Quantity of gold extracted - -	35,084	163,188	207,135	209,714
	Rx.	Rx.	Rx.	Rx.
Approximate value of gold extracted -	193,059	980,000	1,449,000	1,540,000
Royalty due to the Mysore State, approximately.	9,652	49,000	72,000	77,000

No reports of successful results have been received from the Burma ruby mines by the end of the year. The lessees were in arrears with their rental for the mines. Rubies.

X.

PUBLIC WORKS.

PUBLIC WORKS. General.

The Public Works Department was represented in the Governor General's Council during the year by Sir Charles B. Pritchard, K.C.I.E. Mr. F. L. O'Callaghan held the post of Public Works Secretary.

The engineer establishment of the Department, including Bombay and Madras, but excluding the now separate Military Works Department, was maintained at an average strength of 839.

The following statement shows the composition of the superior engineer establishment as it stood on the 30th June 1893.

	Government of India List.	Government of Madras List.	Government of Bombay List.	TOTAL.
Royal Engineer officers - - -	60	12	8	80
Other military officers - - -	10	—	—	10
Civil Engineers:				
Appointed from Europe - -	359	59	50	468
Europeans appointed in India -	191	3	6	200
Natives appointed in India - -	66	9	24	99
TOTAL - - -	686	83	88	857

The upper subordinate engineering staff is largely composed of natives. The numbers of this establishment in the three presidencies were as follows:—

	Indian.	Madras.	Bombay.	TOTAL.
Europeans - - - - - -	271	71	27	369
Natives - - - - - - -	314	99	160	573
TOTAL - - -	585	170	187	942

The Engineering branch of the Department is divided into two services, Imperial and Provincial, the former of which is recruited in England and the latter in India. The pay, and leave and pension rules, of the two services are different, but in other respects there is no distinction between the members of the two divisions, and the highest posts in the Department are open to both. The recruiting of the Imperial Service is from the Royal Indian Engineering College at Cooper's Hill; the Provincial Service draws its recruits from Students of the Indian Colleges who are natives of India, and from upper subordinates of the Public Works Department.

The

The recruitment of the Accounts branch of the Department is wholly in India In respect of entrance examination and scale of salaries this branch of the Public Works Department has been assimilated to the enrolled list of the Finance Department.

The operations of the Department deal with three kinds of works, viz., Railway, Irrigation, and Buildings and Roads. The Railway Department is an Imperial service under the direct control of the Government of India; the establishment employed on Irrigation, and on Buildings and Roads, is subdivided into different Provincial services, controlled by the local administrations subordinate to the Supreme Government. Under the head of Buildings and Roads are included many miscellaneous works, such as improvements in towns, paving, water supply and drainage, harbours, lighthouses, &c.

The annual expenditure on public works is met partly from money raised by loan, and partly from the ordinary revenues of the year. The class of works on which borrowed money is expended comprises the railway and large irrigation works, which are expected to yield sufficient net revenue to cover the interest on the capital expended on them. For the railways and more important irrigation systems, distinct capital and revenue accounts are kept, but for the smaller works of irrigation, and most of the works included in the class of buildings and roads, such accounts are not kept, though a distinction is made in the accounts between expenditure on new works, and expenditure on repairs to existing works.

The following statement of the total receipts and expenditure under the head of Public Works for 1893–94 is compiled from the Finance and Revenue Accounts of the year :—

RECEIPTS.

	Rx.
Railways	20,296,973
Irrigation	2,296,409
Buildings and Roads	674,354
TOTAL	23,267,736

EXPENDITURE (exclusive of Rx. 324,974 charged under Special Defence Works).

	Charged to Revenue.	Not Charged to Revenue.
Railways:	Rx.	Rx.
Construction	1,134,857	2,939,568
On Revenue Account	21,832,476	
Irrigation:		
Construction	100,800	681,664
Ditto - from Famine Relief Grant	56,351	
On Revenue Account	2,761,767	
Buildings and Roads:		
Military Works	1,180,608	
Civil Work	4,630,244	
TOTAL	31,697,103	3,621,252

PUBLIC WORKS.

The expenditure charged against revenue includes the following items of "Interest on Debt": —

	Rx.
Railways	4,972,838
Irrigation	1,165,558

On the 31st of March 1894, Rx. 114,701,259 of permanent public debt had been incurred on account of railways, and Rx. 29,679,280 on account of irrigation.

RAILWAYS.

RAILWAYS. Classification.

A full account of the results of railway operations in India is given in the Railway Administration Report annually presented to Parliament, and the aim of the following section is merely to give a short summary of the chief facts. As the accounts of the several railways had not been finally closed when the following statistics for the year 1894 were prepared, the figures must be accepted as only approximately correct.

The railways of India are classified primarily with reference to their ownership, and may be broadly divided into the Guaranteed, the State, and the Assisted. In the early days of railway enterprise the agency of private companies guaranteed by the State was exclusively employed, and nearly all the great trunk lines were made under this system. The chief terms of the contract between the old guaranteed companies and the State were as follows: the Government gave the land required free of charge; it also guaranteed interest, generally at the rate of 5 per cent., on the share capital raised with its consent, and a lower rate upon debenture capital. A general control and supervision over the proceedings of the company was also retained, and Government stores and troops were to be carried on favourable terms. If the net profits in any half-year fell below the amount of guaranteed interest the Government made up the deficiency. If they exceeded this amount the surplus was equally divided between the Government and the company. Moreover, the Government had the right of buying the undertaking at specified dates, on payment of the value of the stock calculated at its market price on the average of the three preceding years. In this way the East Indian Railway was acquired in 1880, the Eastern Bengal Railway in 1884, the Scinde, Punjab, and Delhi Company's lines in 1885–86, the Oude and Rohilkund Railway at the end of 1888, and the South Indian Railway in 1890. In 1870 a new policy of railway development by the direct agency of the State was inaugurated; and in 1880-81 the system of encouraging private enterprise by State assistance was again resorted to. Both agencies are now employed side by side. The experience gained of the working of the old guarantee system has, however, suggested various modifications in the relations between the State and the companies which have more recently been formed for the construction and working of railways, and the nature of the assistance granted now varies considerably. In some instances, of which the Bengal and North-Western Railway is the most important, lines have been constructed without any direct pecuniary assistance; in others a subsidy or limited guarantee has been granted. The agency of private companies has also been employed by the Government both in the construction and working of State lines. In all cases the Government has the power of taking over the railway at specified periods on stated terms.

Financial results to the State.

The following figures, taken from the Finance and Revenue Accounts of 1893-94, show the financial result of the working of the railways in India for the year ending 31st March 1894 :—

	Imperial.	Provincial.	England, including exchange.	TOTAL.
REVENUE.	Rx.	Rx.	Rx.	Rx.
State Railways — (Gross traffic receipts)	15,882,590	996,137	380	16,879,107
Guaranteed Companies — (Net traffic receipts)	3,383,812	- -	- -	3,383,812
Subsidized Companies — (Repayment of advances of interest)	34,054	- -	- -	34,054
TOTAL	19,300,456	996,137	380	20,296,973
EXPENDITURE (on Revenue Account).				
State Railways:				
Working expenses	7,879,011	384,964	- -	8,263,975
Interest on debt	3,114,405	212,754	1,645,680	4,972,839
Annuities in purchase of railways	- -	- -	2,797,424	2,797,424
Interest on capital deposited by companies	31,809	- -	1,121,306	1,153,115
Interest chargeable against companies on advances	- -	- -	357,935	357,935
Guaranteed Companies:				
Surplus profits, land and supervision	605,258	- -	- -	605,258
Interest	2,495	- -	3,554,997	3,557,492
Subsidized Companies:				
Land, &c.	6,766	14,234	- -	21,000
Miscellaneous Railway Expenditure	102,252	1,187	- -	103,439
TOTAL	11,741,996	613,139	9,477,342	21,832,477

In the figures for expenditure are included all charges falling on the Government for management and working expenses of railways, for interest on their capital outlay, as well as for the gradual redemption (by charge to the revenue account) of the commuted capital of the East Indian, Eastern Bengal, and Scinde, Punjab, and Delhi railways, through the agency of sinking funds and annuities, and of that portion of the Oudé and Rohilkund Railway debt incurred in excess of the money raised through the agency of the "discount" sinking fund; the figures also include charges for land and control required by the companies, and for miscellaneous items, such as head-quarters establishment and surveys. After meeting all these expenses, the total charge to the State in 1893–94 was Rx. 1,535,504.

RAILWAYS.

General results of the working of railways.

The general results of the working of the various classes of railways during 1894 are given in the following table. The aggregate net earnings by all Indian railways* amounted to 5·68 per cent. on the total capital outlay on open lines, including steamboat service and suspense items, but excluding other indirect charges, against 5·49† per cent. in the previous year :—

RAILWAY STATISTICS, 1894.

CLASS.	Length of line open on the 31st December 1894.	Total capital outlay on open lines to the 31st December 1894, including steam-boat and suspense.	Total number of passengers carried.	Total weight of goods carried.	Gross earnings including steam-boat service.	Working expenses including steam-boat service.	Net earnings including steam-boat service.	Percentage of net earnings on capital outlay on open lines.
STANDARD GAUGE.	Miles.	Rx.	No.	Tons.	Rx.	Rx.	Rx.	
State lines worked by companies - -	3,543·01	59,649,868	20,708,148	7,947,225	6,556,998	2,305,955	4,251,042	—
State lines worked by the State - -	‡3,989·68	64,724,876	29,212,971	10,139,316	5,396,602	2,959,982	2,436,620	—
Lines worked by guaranteed companies	2,586·90	49,862,503	38,467,436	5,233,526	6,240,059	3,073,991	3,166,067	—
Assisted companies - - - -	183·63	1,737,357	2,219,506	121,102	164,133	74,736	89,397	—
Lines owned by native states and worked by companies - - -	412·66	4,763,844	1,784,056	556,908	380,271	185,640	194,631	—
Lines owned by native states and worked by state railway agency -	123·86	766,800	898,439	318,688	113,500	61,600	51,900	—
TOTAL for 1894 - - -	10,839·74	181,505,248	93,290,556	24,316,765	18,851,563	8,681,904	10,169,657	5·61
TOTAL for 1893† - - -	10,568·40	176,670,072	88,454,834	21,242,685	17,827,790	8,144,138	9,683,652	5·48
METRE GAUGE.								
State lines worked by companies - -	5,237·31	38,867,508	35,339,366	5,530,785	4,702,772	2,247,730	2,455,042	—
State lines worked by the State - -	1,309·89	11,187,660	10,363,800	1,444,327	1,155,741	632,100	523,641	—
Assisted companies - - - -	172·61	1,185,788	610,991	361,516	123,332	73,526	49,806	—
Lines owned by native states and worked by companies - - -	188·30	845,200	1,459,044	211,436	69,622	35,175	34,447	—
Lines owned and worked by native states - - - - - - - -	744·54	2,644,078	2,623,801	356,562	314,395	157,634	156,761	—
TOTAL for 1894 - - -	7,653·15	54,730,234	50,397,002	7,904,626	6,365,862	3,146,165	3,219,697	5·88
TOTAL for 1893† - - -	7,564·85	53,960,503	45,938,513	7,368.910	6,064,775	3,087,535	2,977,239	5·52
SPECIAL GAUGES.								
State lines worked by the State - -	28·00	81,383	57,433	10,323	7,141	6,011	1,129	—
Assisted companies - - - -	51·00	322,277	52,304	26,784	62,855	34,848	28,007	—
Lines owned by native states and worked by companies - - -	71·66	188,700	455,000	50,000	24,100	14,170	9,930	—
Lines owned by native states and worked by state railway agency -	22·25	71,410	45,930	3,250	3,778	3,000	778	—
Lines owned and worked by native states - - - - - - - -	93·75	222,300	283,000	21,070	31,800	17,800	14,000	—
TOTAL for 1894 - - -	266·66	886,070	893,667	111,427	129,674	75,829	53,844	6·08
TOTAL for 1893† - - -	266·78	863,751	819,978	119,343	128,476	71,174	57,301	6·63
TOTAL of all railways for 1894 - - -	18,759·55	237,121,552	144,581,225	32,332,818	25,347,099	11,883,898	13,463,198	5·68
TOTAL of all railways for 1893† - - -	18,400·03	231,494,327	135,213,325	28,725,938	24,021,041	11,302,848	12,718,193	5·49

* Excepting the West of India, Portuguese and the Pondicherry railways.
† As corrected from later information.
‡ Including four miles used for metre gauge traffic.

It will be observed that with an increase of 359½* miles, or 1·95 per cent., in the open mileage as compared with 1893, the gross earnings and working expenses show increases of Rx. 1,326,058, or 5·52 per cent., and of Rx. 581,050, or 5·14 per cent., respectively, resulting in an increase of Rx. 745,008, or 5·86 per cent., in the net earnings. RAILWAYS.

The total number of passengers carried and the tonnage of goods moved were more than in 1893 by 9,367,900 passengers and 3,606,880 tons of goods respectively.

The total railway mileage under each gauge opened during the year, and the sections opened, were as follows:—

	Miles.	Miles.
STANDARD GAUGE. *Miles.*		
East Indian—Sakrigali to Sakrigali Ghát - - - 5†		
Toposi to Khorabad - - - - 11½		
Barákar to Kátrásgarh - - - - 33¾		
	50¼	
Godhra-Rutlam—Limkhéra to Rutlam - - - -	90½	
Oude and Rohilkund (State)—Bareilly *vid* Rampur to Moradabad - - - - - - - - - -	55½	
East Coast (State)—Junction with the Southern Mahratta Railway near Tadêpalli to Bezwada 4‡		
Vizianagram to Parlákimedi road (Tiláru) - - - - - 55½		
	59½	
Kolar Goldfields—Bowringpet to Mysore mines terminus -	10	
		265¾
METRE GAUGE.		
Bengal and North-Western (company's section)—Gogra Ghát to Bahramghát - - - - - - - - - -	6§	
Rohilkund and Kumaon (Lucknow-Bareilly section)—		
Sohela to Sonaripur - - - - - 6½		
Bareilly junction to Bareilly grain mart - 1¾		
	8¼	
Máyavaram-Mutupet—Máyavaram to Mutupet - - -	54	
Mu Valley (State)—Wuntho to Nankan - - - -	15¾	
Bengal Dooars—Mal bazar to Dam Dim - - - -	4¼	
Jetalsar-Rájkot—Rájkot cantonment to Rájkot on the Morvi Railway - - - - - - - - - - - -	¼	
		83¾
TOTAL - - -		354¼

The additional lengths sanctioned for construction were:—

STANDARD GAUGE.		
East Indian, Jherriah extension—Dheira Joba to Damoodur River - - - - - - 10		
Toposi Colliery extensions—Mohanpur to chain 294·80 towards Jamgram - - 1		
	11	
Godhra-Rutlam—Rutlam to Ujjain - - - - -	61	
Bezwada-Madras—Ráyapuram to Ennore - - - -	10	
Wazirabad-Lyallpur—Wazirabad to Lyallpur - - -	116	
Kotri-Rohri (Chord line)—Kotri to Rohri - - - -	194	
Oude and Rohilkund (State)—Lucknow City branch - -	3‖	
East Coast (State) Poree branch - - - - - -	26	
		421
METRE GAUGE.		
Cawnpore-Lucknow-Gogra metre gauge connection—		
Cawnpore to Rámnagar - - - - -	84½	
Gogra bridge and approaches - - - -	6½	
		91
SPECIAL, 2FT. 6IN., GAUGE.		
Anklesvar Nandod—Anklesvar to Pardi - - - - - - - -		20½
TOTAL - - -		532½

* The difference between this figure and the total length shown in the statement following as having been opened during 1894 is due to minor corrections in the mileage of existing railways.
† Sidings converted into a branch line.
‡ Laid on a mixed standard and metre gauge. Open for metre gauge traffic on the 1st January 1894.
§ Temporary line available for use during fair weather only.
‖ Sanctioned in connection with the Cawnpore-Lucknow-Gogra metre gauge connection scheme.

RAILWAYS.

The total mileage under construction or sanctioned for commencement at the close of the year, *i.e.*, on the 31st December 1894, was as follows:

	Miles.	Miles.
STANDARD GAUGE.		
State lines worked by companies	103	
State lines worked by the State	698¾	
Lines owned and worked by native states	187½	
		989¼
METRE GAUGE.		
State lines worked by companies	831¼	
State lines worked by the State	141	
Assisted companies	16½	
Lines owned and worked by native states	130½	
		1,119¼
SPECIAL GAUGE.		
Line owned by native state and worked by company		20½
TOTAL		2,128¾

The extension of the Barákar branch of the East Indian Railway to the Jherriah coalfields was completed and opened for public traffic on the 20th May. The Toposi extensions, which will serve the collieries in the Raneegunge district, were also completed and will shortly be opened for public traffic. Certain portions of these extensions have already been brought into use for the carriage of coal.

The first of the 85lb. steel rails, which is to be the future standard of rails on the East Indian Railway, were laid during the year.

The bridge of boats across the Mahanuddee River at Sambalpur on the Bengal-Nágpur Railway was completed and opened for traffic.

A very large addition was made to the carrying capacity of the waggon stock on this line by substituting stronger springs for those previously in use.

The North-Western (State) Railway was breached in several places by heavy floods during the months from June to August.

The construction of the branch line from Wazirabad to Lyallpur, to serve the tract irrigated by the new Chenab Canal, was commenced at the close of the year, and also the construction of the chord line from Kotri to Rohri.

The work of doubling the main line between Kurrachee and Piprí, a distance of 26 miles, was in progress. The Jhelum bridge was strengthened and opened to traffic in December, and the work of strengthening other weak bridges on the line was approaching completion.

The lining of the Khojak tunnel was completed during the year.

Of the 64 miles of line on improved grades between Jhelum and Ráwalpindi, 40 miles were open for traffic at the close of the year and 24 miles were under construction.

On the Eastern Bengal (State) Railway 20,000 Denham-Olphert's sleepers were renewed and 8¼ miles relaid with steel rails on the eastern (standard gauge) section, and 6½ miles of rails were also relaid on the northern (metre gauge) section.

The Kistna bridge section of the East Coast (State) Railway, from a point 0·36 mile east of Tadêpalli to Bezwada junction, was completed for metre gauge traffic, and the trains of the Southern Mahratta Railway have been working through to Bezwada since the 1st January 1894. On the opening of this section the portion of the Southern Mahratta Railway line between the point of junction with the East Coast (State) Railway and the Kistna Canal terminus was dismantled.

A further length of the East Coast (State) Railway from Vizianagram to Parlákimedi road (Tiláru), 55½ miles, was completed and opened for public traffic on the 20th July; it is expected that the line from Parlákimedi road to Thurla (Kasibugga), 33 miles, will be opened in February 1895.

At the close of the year a further revised estimate was sanctioned for the East Coast (State) Railway, including a branch to Pooree.

The

The survey of the Bezwada-Madras Railway was completed and sanction accorded to the construction of the Ráyapuram-Ennore section through the agency of the Madras Railway Company. RAILWAYS.

On the Mushkaf-Bolán Railway works were actively pushed forward during the year, except from June to October, when they had to be slackened off for want of funds. The arching of the Panir tunnel, the longest on the line, was completed, also that of most of the other tunnels on the line.

On the Mári-Attock Railway works were proceeded with on the Campbellpore division only.

The interlocking arrangements on the Great Indian Peninsula Railway between Victoria terminus and Masjid station were completed, and the work of strengthening the old 30ft. girder bridges was in progress.

The new station at Colaba on the Bombay Baroda and Central India railway was in progress, and work was started on the new general offices at Bombay.

It is expected that the Bína-Guna Railway will be opened for traffic in June 1895. The works to connect the line with the Indian Midland Railway at Bína were practically completed.

On the Bhopal-Ujjain Railway, works were in progress throughout the line, and plate-laying was expected to have been started by the end of the year. The junction arrangements with the Indian Midland Railway at Bhopal were practically completed.

The railway from Godhra to Rutlam was completed during the year, the last section from Dohad to Rutlam having been opened for public traffic on the 22nd October. The extension of this railway from Rutlam to Ujjain, to connect the standard gauge systems of Central India with those of Guzerat, was sanctioned at the close of the year, and arrangements are being made for the commencement of work.

In November 1894, work was started on the Cawnpore-Lucknow Gogra metre gauge line, which has been sanctioned in connection with the scheme for the linking up of certain metre gauge railways in Northern India.

One hundred and twenty-seven miles of rails were laid on the Gauhati-Silchar section of the Assam-Bengal Railway and rolling stock was being erected. On the Badarpur-Lumding section rails were being laid between Badarpur and the foot of the hills.

Construction was well in hand on two-thirds of the Gauhati branch, and a commencement was made on 60 miles of the line north of Dimapur.

On the Burma (State) Railway, about 18 miles of line in the Irrawaddy district and about 14 miles in the Sittang district were relaid with 50lb. steel rails. In the former district about 90,000 sleepers were also renewed.

The Wuntho-Nankan section of the Mu Valley (State) Railway, 15¾ miles, was opened for traffic on the 1st November, and included with the open section of the Burma (State) Railway system. It is expected that the line will be opened to Mogaung by the end of 1895.

The original Nílgiri Railway Company is in liquidation, but construction progresses slowly.

Works were well advanced on the Oodeypore-Chitor (native state) Railway, and it is expected that the line will be opened for traffic in the spring of 1895.

The survey and estimates of the Rájkot-Jamnagar Railway, which is also a native state line, have been completed.

The railway bridge, about 3,254 feet in length, across the Aji River was completed, and a connection effected at Rájkot junction station between the Jetalsar-Rájkot and Morvi railways.

Pintch's system of lighting carriages with gas was sanctioned for the Great Indian Peninsula, Bombay, Baroda and Central India, and Madras railways, and its introduction on State lines decided on.

GUARANTEED RAILWAYS.

GUARANTEED RAILWAYS.

The transactions of the original guaranteed lines are illustrated by the following table. In this table the rupee is converted into sterling at contract rates:—

	Capital Expended.	Net Revenue.	Guaranteed Interest.	Interest in excess of Revenue.	Net Revenue in excess of Interest.	Surplus profits earned by Company.
Half-year ended the 30th June 1894.						
	£.	£.	£.	£.	£.	£.
Great Indian Peninsula - - -	25,505,582	1,172,961	602,937	—	570,024	558,441
Bombay, Baroda and Central India - -	*8,933,312	606,791	209,923	—	396,868	396,868
Madras - - - - - - - -	11,037,815	228,464	266,518	38,054	—	—
TOTAL - - -	45,476,709	2,008,216	1,079,378	—	928,838	955,309
Half-year ended the 31st December, 1894.						
Great Indian Peninsula - - -	25,625,145	369,906	602,937	233,031	—	—
Bombay, Baroda and Central India -	*9,025,958	303,001	212,202	—	90,799	90,799
Madras - - - - - - - -	11,056,192	221,106	266,519	45,413	—	—
TOTAL - - -	45,707,295	894,013	1,081,658	187,645	—	90,799
TOTAL for the year 1894 - - -	45,707,295	2,902,229	2,161,036	—	741,193	1,046,108
TOTAL for the year 1893† - - -	45,277,940	3,044,439	2,157,906	—	887,433	996,419

* Including the State outlay on the Pátri branch, 74,104*l*. † As corrected from later information.

IRRIGATION.

IRRIGATION

Unlike the branch of public works dealt with in the preceding section, the history of irrigation in India stretches back into remote antiquity, and many of the irrigation systems now administered by the officers of the Public Works Department are founded on the lines of old native works, which have been restored and extended or re-modelled.

The class of works dealt with by the Public Works Department under the head of irrigation may be roughly divided into canals and tanks, though these two kinds of works are frequently used in combination.

The storage of water in tanks for the purpose of irrigation is very common in Southern India. The works are for the most part of native origin; but much has been done under the British Government in repairing and improving old tanks, and in constructing new works, in Madras, the Bombay Deccan, and in Ajmere-Merwara.

Canal irrigation, in which the water is drawn directly from a river, has been practised on the largest scale and with the most successful results in the North-Western Provinces, the Punjab, and the deltas of the large rivers in the Madras Presidency. Irrigation canals are of two descriptions—viz., "perennial" and "inundation." The former are furnished with permanent headworks and weirs, and are capable of irrigating large tracts of country throughout the year, independently of the local rainfall. The magnitude of some of the works of this class, which are almost entirely due to British enterprise and skill, may be judged by a few instances. The Ganges Canal, which has been in operation since 1854, and has cost Rx. 2,895,187, comprises 459 miles of main canal,

and

and 3,819 miles of distributaries, and in the year under review supplied water to 656,757 acres. The Sirhind Canal in the Punjab, which has not long been opened, has cost Rx. 3,784,482, and consists of 542 miles of main channels, and 4,653 miles of distributaries. In Madras the great deltaic irrigation systems of the Godaveri, Kistna, and Cauvery have respective lengths of main channel of 503, 329, and 844 miles, and together irrigate upwards of 2,000,000 acres. The inundation canals, which are peculiar to the Punjab and Sind, are of a much simpler and less costly description than the perennial canals. They are for the most part simply earthen channels, made without the expensive machinery of masonry dams and sluices, and are supplied with water by the annual rise in May of the Indus and its affluents. They constitute a very useful class of irrigation works, and in some cases have produced most successful financial results.

The works to which the preceding paragraph applies, in most cases take off from the larger rivers, which, even in times of drought, can be depended upon for an unfailing supply of water. There is, however, a large class of works, chiefly tanks, in which the supply of water is more or less dependent on the local rainfall, either directly or through the medium of the smaller rivers which dry up in hot seasons. There remains the method of irrigation more extensively used in India than any other—viz., that by wells, which, however, does not come directly within the scope of operations of the Public Works Department.

Financially considered, the irrigation works are classed as "Major" or "Minor." The former class includes all the works which have been undertaken from loan funds, in the expectation that they would be sufficiently productive to cover the interest charges on the sums spent on their construction. It also includes the works classed as famine protective, which are constructed not from borrowed funds, but out of the annual grant from revenue for famine relief and insurance. The cost of constructing the "Minor" works, as well as the sums annually required for their working and maintenance, are met from the ordinary revenues, and for the greater part of this class of works distinct capital and revenue accounts are not kept.

The distinction implied in the words "Major" and "Minor" is not in complete correspondence with the facts, as there are some Minor Works which are of more importance than some Major Works. But, speaking generally, the "Major" class includes the works of the greatest engineering importance, which have been constructed, or, as in a few cases of old native works, almost entirely reconstructed by British officers.

The following statement gives a general view of the results obtained from working the canals, for which full accounts are kept, for 1893–94 and the two previous years:—

	Capital Outlay (Direct and Indirect) to End of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
	Rx.	Rx.	Rx.	Rx.		Acres.
Major Works - - -	31,031,277	2,130,271	875,618	1,254,653	4·04	6,952,723
Minor Works - - -	4,821,619	618,892	266,068	352,824	7·32	2,431,120
TOTAL for 1893–94 -	35,852,896	2,749,163	1,141,686	1,607,477	4·4	9,383,843
TOTAL for 1892–93 -	34,986,721	2,887,740	1,171,816	1,715,924	4·9	9,641,065
TOTAL for 1891–92 -	34,272,979	2,622,967	1,187,836	1,435,131	4·1	9,444,363

There are great differences in the financial success of the irrigation works in the various provinces. These are due to the various physical conditions of the country in regard to surface, soil, climate, and the absence or presence of large

IRRIGATION.

rivers with a permanent supply of water, as well as to the differences in the character and habits of the people in different districts. There are also considerable differences in the manner in which the irrigation revenue is assessed and collected, which have an important bearing on the financial success of the works. In Madras the bulk of the irrigation revenue is collected with, and on most of the works is consolidated with, the land revenue. In Bengal and Bombay the receipts of the Irrigation Department consist to a great extent of "occupiers'" rates, and are not supplemented by "owners'" rates, as in the North-West provinces, nor, with a few exceptions, by a share of the land revenue. In Sind the revenue of the canals consists almost entirely of the share of the land revenue allotted to irrigation. Cultivation is dependent on the artificial supply of water, and the consolidated revenue from the irrigated lands is divided in the proportion of 90 per cent. to irrigation and 10 per cent. to land. In the North-Western Provinces and Oudh, and in the Punjab, the direct water rates are assessed partly on the occupier and partly on the owner of the land, the bulk of the rates falling on the former, and the irrigation receipts are further increased by a not unimportant contribution from the land revenue.

The following table gives the mileage of the canals in operation in each province, with the area irrigated during the year, and the estimated values of the crops raised by means of irrigation from the works :—

	Bengal.	North-West Provinces and Oudh.	Punjab.	Madras.	Bombay, including Sind.	Baluchistan.	Rajputana.	TOTAL.
MAJOR WORKS:	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.		Miles.
Main Canals - -	748	1,447	1,368	2,039	1,134	Nil.	Tank irrigation.	6,736
Distributaries - -	2,577	8,853	5,963	5,556	327	Nil.	- ditto -	23,276
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Area irrigated - -	559,181	1,568,298	1,750,591	2,460,192	614,461	—	—	6,952,723
MINOR WORKS:	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.		Miles.
Main Canals - -	1,311	—	2,645	1,475	1,943	4	Tank irrigation.	7,378
Distributaries - -	—	592	687	1,172	349	43	- ditto -	2,843
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Area irrigated - -	1,352	78,236	1,006,629	471,676	832,732	6,251	34,244	2,431,120
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Estimated value of crops raised by Major and Minor Works.	1,810,246	—	7,475,032	7,727,048	585,974*	—	52,008	—

The following more detailed account of the irrigation operations of the year is given under the heads of the different provinces in which the works are situated.

Bengal.

Owing to the abundant rainfall of 1893-94, and the consequent decline in the demand for canal water, the results of working the irrigation canals in Bengal for the year compare unfavourably with those of the two preceding years.

On the Orissa canals, owing partly to exceptionally heavy working expenses, the yearly deficit was more than usually large. The improvement in the administration of this canal, noticed in last year's report, continues, as also does the increase in the area irrigated under long leases from the Sone canal.

* Exclusive of Sind.

The

The general results for 1893–94 of working all the irrigation and navigation systems, for which full accounts are kept, are compared with the results of the five previous years in the following statement:—

YEAR.	Capital Outlay to End of Year.	Receipts.	Expenditure.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
	Rx.	Rx.	Rx.	Rx.		Acres.
1888–89 - -	7,078,339	204,329	179,631	24,698	0·3	564,012
1889–90 - -	7,134,353	208,847	171,205	37,642	0·5	553,934
1890–91 - -	7,277,301	216,727	198,166	18,561	0·2	545,541
1891–92 - -	7,362,773	220,171	187,294	32,877	0·4	742,346
1892–93 - -	7,417,261	259,544	196,152	63,392	0·8	666,490
1893–94 - -	7,474,377	235,964	207,926	28,038	0·3	557,633

There are in Bengal four canal systems which are classed as Major Works. Three of these combine irrigation with navigation, and the fourth (Hidgellee Tidal Canal) is purely a navigation work.

The financial results obtained from the working of the Major and Minor Works during the year under review are shown in the following statement:—

CANAL.	Capital Outlay to End of Year.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
Major Works:	Rx.	Rx.		Acres.
Orissa Canals - - - -	2,589,758	—16,011	—	103,526
Midnapore - - - -	844,546	9,657	1·14	85,763
Tidal Canal - - - -	231,923	269	·11	—
Sone Canals - - - -	2,686,994	18,469	·68	366,776
Total Major Works - - -	6,353,221	12,384	·19	556,065
Minor Works:				
Calcutta and Eastern Canal -	535,744	13,341	2·49	—
Orissa Coast Canal - - - -	438,938	—1,565	—	—
Sarun Project - - - -	69,675	79	·01	1,568
Total Minor Works - - -	1,044,407	12,855	1·2	1,568

The Calcutta and Eastern Canals, which are the most profitable of the canal works in Bengal, are navigation works designed to maintain communication between Calcutta and Eastern Bengal, through the Sunderbunds. The Orissa Coast Canal, also a navigation work, forms, with the Hidgellee Tidal Canal, a complete line of communication between Calcutta and Orissa; and in the event of famine in the latter district would be very useful as a means of importing food.

Besides the Minor Works mentioned in the foregoing statement, there are three works of this class for which capital accounts are not kept—viz., the Nuddea rivers system, and the Eden and Madhuban Canals. The first-named, which comprises about 477 miles of channel, is used for navigation purposes only.

IRRIGATION.

In the following statement the traffic on the canals in Bengal in 1893-94 is shown in comparison with the traffic results of the previous year. The Nuddea rivers are included in this statement:—

YEAR.	Length of Canal open for Navigation.	Receipts.	Maintenance Charges.	Net Receipts.	Ton Mileage. *	Estimated Value of Cargoes.	Number of Passengers.
	Miles.	Rx.	Rx.	Rx.	Tons.	Rx.	No.
1892-93 - -	1,150	103,412	57,275	46,137	49,575,060	13,631,279	612,668
1893-94 - -	1,150	105,745	67,366	38,379	45,285,170	13,063,013	749,851

* Excludes Nuddea Rivers.

The total capital expenditure of the year on all the irrigation and navigation works amounted to Rx. 57,115, against Rx. 54,488 in the preceding year. The greater part of the year's capital expenditure was as usual on the Orissa Canals. The extension of the distributary system of these canals, with the drainage and protective works in connection with them was still in progress.

NORTH-WEST PROVINCES.

North-West Provinces and Oudh.

In the North-West Provinces and Oudh the rainfall, both for the kharif and rabi cultivation, was above the average, and favourable to the crops. Both seasons therefore favoured the cultivator rather than the canals.

The general results of the year's working are compared with those of the five previous years in the following statement:—

YEAR.	Capital Outlay to End of Year.	Net Assessed Revenue.	Percentage of Net Revenue to Capital.	Area Irrigated.
	Rx.	Rx.		Acres.
1888-89 - - - -	7,998,365	310,435	3·88	1,604,753
1889-90 - - - -	8,087,397	370,563	4·58	1,879,403
1890-91 - - - -	8,135,747	413,703	5·08	2,014,114
1891-92 - - - -	8,189,278	446,626	5·45	2,045,030
1892-93 - - - -	8,230,083	381,495	4·62	1,799,846
1893-94 - - - -	8,286,659	428,540	5·17	1,645,197

Excluding the Betwa Canal, which is a protective work, the Major Works earned a profit of 5.71 per cent. on their capital outly. The individual returns from, and the areas irrigated by, the four works were as under:—

CANAL.	Percentage of Net Revenue (actually realised) on Capital.	Area Irrigated.
		Acres.
Upper Ganges - - - -	7·23	656,757
Lower Ganges - - - -	3·39	525,853
Agra - - - - - -	2·34	165,220
Eastern Jumna - - - -	24·61	201,664

The Betwa Canal, the only "protective" work, was worked at a loss of Rx. 4·283.

The net revenue from the Minor Works amounted to Rx. 10,413, which yielded a percentage of nearly 4 on the capital outlay of Rx. 260,832.

The

The capital expenditure of the year, which amounted to Rx. 56,553, was incurred chiefly on the drainage of water-logged tracts, on the remodelling of distributaries, and on the permanent river training works at Narora. The expenditure was almost entirely confined to the major class of works. IRRIGATION.

Of the 1,403 miles of main and branch canals of the North-West Provinces and Oudh, 535 miles on the Ganges, Lower Ganges, and Agra Canals, were open to navigation during the year.

The navigation operations on the irrigation canals are not profitable. The figures for the last four years are given in the following statement:—

Year.	Excess of Working Expenses over Receipts.
	Rx.
1890–91	1,078
1891–92	785
1892–93	421
1893–94	1,148

Of the principal crops raised on irrigated land, the chief place is as usual held by wheat, of which there were 558,126 acres—a considerable decrease from the previous year's crop, owing to the heavy winter rains, which enabled many crops to be raised without the aid of canal water.

Of the kharif crops, the area under rice was rather below the average of recent years, and that of indigo abnormally large.

In addition to the area irrigated by the canals under the direct control of the Irrigation Department, there were 109,313 acres irrigated during the year by the Tarái and Bhábar Canals under the Commissioner of Kumaon.

The demand for canal water in the Punjab was seriously affected by the heavy rainfall during the rabi of 1892–93 and the kharif of 1893, and the results of the irrigation operations compare unfavourably with those of the preceding year. The decrease in net revenue, owing to this cause, is most marked in the case of the Sirhind Canal. In the districts watered by this canal, the soil is not suited to the cultivation of the two great staples of the kharif irrigation, sugar-cane and rice, which require water even during the wettest season, and the development of irrigation is largely dependent on the rabi crops. Punjab.

On the other hand, the heavy rainfall which checked the demand on the perennial canals, tended to supplement the supply of water rather than affect the demand on the inundation canals, and in the latter class of works the net revenue was considerably in advance of the preceding year's figures.

The general results of the year's operations for all works are shown in the following table in comparison with the records of the four previous years:—

Year.	Capital Outlay to end of Year.	Area Irrigated.*	Assessed Revenue.*
	Rx.	Acres.	Rx.
1889–90	6,196,927	2,773,027	689,260
1890–91	6,435,818	2,833,469	751,491
1891–92	6,904,556	3,024,241	801,981
1892–93	7,182,298	2,835,779	737,242
1893–94	7,555,941	2,757,220	735,473

* Includes Muzzaffargarh Canals.

The above figures are exclusive of the Native States portion of the Sirhind Canal and Sirsa branch.

IRRIGATION.

Taking the actual revenue collected during the year, the following table compares the individual results obtained from all the works for which full accounts are kept:—

CANALS.	Length of		Capital Outlay to end of Year.	Net Revenue collected in Year.	Percentage of Net Revenue on Capital Outlay.
	Main and Branch Channels.	Distributaries.			
Major Works:	Miles.	Miles.	Rx.	Rx.	
Perennial Canals:					
Swat River - - -	22	143	363,417	16,070	4·42
Western Jumna (including Sirsa Branch).	358	1,247	1,377,675	40,281	2·92
Bari Doab - - - -	362	1,053	1,722,275	163,159	9·47
Sirhind (British portion) -	319	2,714	2,400,432	46,481	1·94
Chenab - - - - -	141	653	1,317,051	5,328	·40
Inundation Canals:					
Lower Sohag and Para -	98	41	69,972	523	·75
Sidhnai - - - -	68	112	98,162	18,738	19·09
Minor Works:					
Upper Sutlej - - -	219	137	65,413	21,106	32·27
Lower Sutlej and Chenab -	796	19	11,010	22,327	202·79
Indus - - - - -	728	–	70,763	5,435	7·68
Shahpur - - - -	120	84	16,278	1,773	10·89
TOTAL - - -	3,231	6,203	7,512,448	341,221	4·54

The irrigation from the Native States branches of the Sirhind Canal showed a considerable decline from last year's results. The cause was the same as that which diminished the returns from the British portion of the canal, viz., abundant rainfall.

The area of irrigation and the return yielded by the net revenue on capital in each of the states were as follows:—

	Area Irrigated.	Percentage of Net Revenue to Capital.
	Acres.	
Patiala - - - - - - -	102,073	0·21
Nabha - - - - - - -	13,197	0·74
Jind - - - - - - -	8,657	— 0·36
	123,927	

In the preceding year, the area irrigated in these states was 134,273 acres.

The capital expenditure of the year amounted to Rx. 373,643, to which must be added Rx. 26,531, expended from contribution on the Native States portions of the Sirsa branch and Sirhind Canal. The greater part of the funds available was absorbed by the Chenab Canal. Excellent progress was made on the extension project of this work, especially in the widening of the main canal, and the construction of the upper portion of the Jhang branch. The Sirsa branch of the Western Jumna Canal will probably be completed by the end of 1894-95.

The

The financial results from navigation on the Western Jumna and Sirhind Canals showed some improvement. On the Western Jumna the net receipts were Rx. 4,264, against Rx. 2,359 in the preceding year. On the Sirhind Canal there was a loss of Rx. 301, which is, however, less than in 1892-93. IRRIGATION.

The expenditure recorded in Lower Burma, under the head of "Irrigation and Navigation," has reference to the river embankment and drainage works, and navigation channels. Of irrigation strictly defined there is nothing to record. Burma.

In Upper Burma, steps have been taken to maintain and extend irrigation. Works have been in hand on the various reservoirs and channels. The survey of the Mandalay Canal was completed during the year, and further surveys in connection with the Mandalay and Shwetachaung Canals, and the new Mu Canal scheme were in progress. The total expenditure during the year was Rx. 49,109.

The irrigation in Ajmere-Merwara is from tanks, none of which are classed as major works. Ajmere-Merwara.

The rainfall of the year was above the average; the tanks generally received sufficient water, and the irrigation operations on the whole were satisfactory. The results for the present and preceding year are compared in the following statement;—

Year.	Capital Outlay.	Revenue Collected.	Working Expenses.	Net Revenue.	Percentage of Net Revenue on Capital.
	Rx.	Rx.	Rx.	Rx.	Rx.
1892-93 -	226,846	9,198	9,849	—651	—
1893-94 - -	236,581	14,192	4,571	9,621	4·06

The revenue is derived partly from water rates directly paid, but chiefly from a share in the land revenue, including a well assessment, credit being given to the tanks for their effect in raising the level of the water in the neighbouring wells.

Seventeen new tanks were constructed during the scarcity of 1891-92, but they were not available for irrigation purposes before the close of the year under review.

The area irrigated or protected by the tanks was 34,244 acres, and the value of the crops raised during the year is estimated at Rx. 52,008.

The general character of the season throughout the Madras Presidency was favourable to irrigation. The rainfall during the year was abundant—in fact, in many places much damage was done to the works by floods—and the supply of water to all irrigation works being ample, the crops yielded a good harvest. Madras.

From an irrigation point of view the Madras Presidency is distinguished by the variety and extent of its works, ranging from the great deltaic systems of the Godaveri, Kistna, and Cauvery, to the small tanks and channels maintained by the Revenue Department.

There are at present 10 "major" works, and 24 "minor" works, for which Capital and Revenue Accounts are kept, and numerous other irrigation and agricultural works, individually small, for which such accounts are not kept. Of the 24 minor works for which full accounts are kept, 20 are irrigation systems, and 4 are tidal canals intended for purely navigation purposes.

On the major works the length of completed main canal was 2,108 miles, and of distributary channels 5,566 miles. The length of navigable channels on both major and minor works was 1,284 miles. The area irrigated during the year was 2,838,427 acres, the crops grown being valued at Rx. 7,727,048. Of the irrigated crops, rice constituted 92 per cent.

IRRIGATION.

Taking all the works for which full accounts are kept, the general results of the year's working will be seen from the following statement :—

YEAR.	Capital Outlay.	Area Irrigated.	Net Actual Revenue.	Percentage of Net Revenue on Capital.
	Rx.	Acres.	Rx.	
1890–91 - - - -	7,240,187	2,767,775	401,342	5·5
1891–92 - - - -	7,562,781	2,792,589	342,980	4·5
1892–93 - - - -	7,815,967	2,847,201	504,925	6·4
1893–94 - - - -	8,084,636	2,838,427	515,896	6·3

The net revenue recorded in the foregoing statement is that which has resulted from the outlay of Government capital. If the net revenue due to old irrigation be added, the total amount will be Rx. 845,720.

The results of the year's working for the Major Works in operation are shown by the following figures :—

WORK.	Area Irrigated.	Capital Outlay.	Net Revenue.	Percentage of Net Revenue on Capital.
	Acres.	Rx.	Rx.	
Godaveri Delta - - - -	716,114	1,280,866	179,874	14·04
Kistna Delta - - - -	506,827	1,119,590	142,016	12·68
Pennér Anicut - - - -	67,439	188,499	13,625	7·23
Sangam Anicut - - - -	73,385	375,199	12,301	3·27
Kurnool-Cuddapah Canal - -	31,089	2,169,302	*—1,340*	—
Barur Tank - - - -	3,756	41,924	431	1·03
Cauvery Delta - - - -	957,546	177,755	81,339	45·75
Srivaikuntham Anicut - -	29,804	145,720	7,918	5·43
Rushikulya (Protective Work) -	8,204	367,445	665	0·18
TOTAL - - -	2,394,164	5,866,300	436,829	7·05

The Minor Works irrigated an area of 444,263 acres, and earned a net revenue of Rx. 80,962, equivalent to a percentage of about 11·57 on the capital expended on them. The purely navigation works, of which the Buckingham Canal is the most important, were worked at a small loss. The total capital outlay on the last-named work amounts to Rx. 831,246.

Besides the works referred to in the foregoing paragraphs, there is a large class of small works in Madras, partly maintained by the Public Works Department and partly by the Revenue Department, for which distinct capital and revenue accounts are not kept. The revenue derived from these works in 1893–94 was Rx. 906,930, and the area irrigated by them was 3,573,871 acres. A plan for the systematic repair of some of these works has now been in progress for some years, under the title of the "Tank Restoration Scheme." Up to the end of the year an expenditure of 48 lakhs had been incurred under this scheme, 29,668 square miles had been investigated, and estimates for 3,896 works had been prepared.

The only large works under construction in the Madras Presidency are the Periyar and Rushikulya Projects. The Periyar project is designed to conduct the waters of the Periyar river from the western to the eastern side of the Ghâts by a cutting and tunnel through the watershed. The capital expenditure on

on this work during the year was Rx. 135,320. On the Rushikulya Project the capital expenditure was Rx. 42,919. This project is now well advanced, and a portion of the works has been opened for irrigation. There was also expenditure on improvements to the Kistna system, and on the Cheyaru Anicut system, and Buckingham Canal. IRRIGATION.

The total capital expenditure of the year on all works amounted to Rx. 268,669.

There is a considerable amount of navigation on the Godavari, Kistna, and Kurnool Irrigation Canals, in addition to that on the tidal canals, which are designed solely for traffic; and on the Godavari Canals the working was remunerative. The total value of goods carried during the year by these three canals and the Buckingham Canal was Rx. 5,407,441, and the ton mileage was 45,552,974.

There are 36 irrigation works in operation in the Bombay Presidency, of which nine are classed as Major Works. There are no works in this Presidency which can be compared in size with the large irrigation systems of Northern India. Bombay, excluding Sind.

The water is, moreover, in most cases, drawn from small rivers and local streams, more or less dependent on rainfall, and a constant supply cannot be maintained without the aid of storage reservoirs. In fact, the reservoir projects, of which there are 27, include all the more important works, such as the Bhátghar reservoir, the Lake Fife Works, and the Ekruk and Mhasvad tanks.

The result of the irrigation operations for the year show considerable improvement in comparison with those of the previous year. The increase in the area irrigated is due to scanty and unseasonable rainfall.

A comparative statement of the results from those works for which full accounts are kept for 1893-94, and the preceding four years, is given in the following table:—

Year.	Capital Expenditure to End of Year.	Area Irrigated.	Revenue Realised.	Working Expenses.	Net Revenue.
	Rx.	Acres.	Rx.	Rx.	Rx.
1889-90 - - -	2,428,146	85,550	42,286	24,712	17,574
1890-91 - - -	2,491,533	74,852	46,081	23,961	22,120
1891-92 - - -	2,511,284	96,025	51,207	28,589	22,618
1892-93 - - -	2,531,673	65,487	54,554	30,777	23,777
1893-94 - - -	2,574,279	79,950	57,374	28,741	28,633

The net revenue realised for the year represents a return of 1·11 on the capital expenditure, as compared with 0·94 in the preceding year. The Major Works produced a net revenue equivalent to 1·30 per cent. on the capital of Rx. 1,825,040 expended on them.

The most important of the Major Works, judged by the amount of capital expenditure, is the Mutha Canal system with the Lake Fife Reservoir, which in 1893-94 irrigated an area of 8,259 acres, besides supplying the cantonment and civil station of Poona with water. The total expenditure on this work is Rx. 647,469, and in the year under review the net assessed revenue was equivalent to a return of 2·76 on the capital outlay. The most remunerative work in the "major" class was the Krishna Canal, which yielded a return of net revenue equal to 3·53 per cent. on the capital cost of Rx. 86,333. For irrigating capacity, the works known as the Nira Canal and Bhátghar Reservoir are the most important in the Province. These works which are classed as protective are estimated to cost Rx. 610,443 when complete, and they will command an irrigable area of 227,670 acres.

The capital outlay during the year on all works amounted to Rx. 42,607, which was incurred principally on the Nira, Mutha, and Gokak Canals.

The total value of the crops irrigated is estimated at Rx. 585,974, against Rx. 394,777 in the previous year.

IRRIGATION.

In the minor class of works, for which distinct capital and revenue accounts are not kept, the expenditure for the year amounted to Rx. 28,057, and the revenue realised was Rx. 54,633, giving a net revenue of Rx. 26,576. The area irrigated during the year by this class of works was 147,393 acres.

Sind.

In Sind the success of the irrigation operations is dependent upon the regular rise of the river Indus. The inundation of 1893 was remarkable for the abnormal rise of the river at the end of May to a height which has only once been exceeded at that date. The river, however, quickly fell till the middle of June, and then rose normally, attaining its greatest height on the 30th July, after which the fall was so rapid that some of the canals ran dry before the crops were sufficiently matured. There were numerous breaches in the river embankments, which were, however, for the most part speedily closed, and only in the Western Nara district was much damage done by flooding.

Taking the works for which full accounts are kept, the general results for 1893–94 and the four preceding years are shown in the following statement:—

Year.	Capital Outlay to End of Year.	Net Revenue.	Percentage of Net Revenue on Capital Outlay.	Area Irrigated.
	Rx.	Rx.		Acres.
1889–90 - - - -	1,183,638	147,413	12·4	1,381,679
1890–91 - - - -	1,193,929	142,458	11·9	1,290,817
1891–92 - - - -	1,207,503	120,058	9·9	1,225,150
1892–93 - - - -	1,237,108	146,533	11·8	1,363,660
1893–94 - - - -	1,293,990	145,466	11·2	1,366,193

In Sind the existence of cultivation depends upon irrigation, and there is a constant demand for the canal water. This fact, and the comparatively inexpensive nature of inundation canals, will account for the favourable financial results obtained from the works.

There are four "major" works in Sind, viz., the Desert, Unharwah, and Begari Canals, and the Eastern Nara Works. The revenue from the first-named work failed to cover the working expenses. The three latter works earned profits at the respective rates of 8·5, 17·1, and 5·5, on the sums expended on their construction.

The financial results obtained from the Minor Works were even more favourable. The net revenue from the Ghar Canal gave a return of 108·4 per cent. on capital expenditure, and the general percentage on capital yielded by the net revenue from the whole class of these works was 23·79.

The capital expended during the year on the Major Works, which amounted to Rx. 52,202, was almost entirely upon the Unharwah and Eastern Nara Works. On the Minor Works the capital expenditure was Rx. 4,679, and was incurred upon the Fuleli Canal.

The widening of the main Unharwah Canal was nearly completed. The works in progress on the Eastern Nara comprised the deepening of the Nara supply channel, on which Rx. 16,215 was expended, and the survey for the Jamrao Canal, which was completed.

Baluchistan.

There are no "major" works in Baluchistan. The class of "minor" works is represented by two schemes now in operation, viz., the Shebo Canal and the Khushdil Khan Reservoir, the former of which has cost Rx. 66,439, and the latter Rx. 89,740.

In the year under review the Shebo Canal earned a net revenue of Rx. 681, equivalent to a percentage of 1·02 on the capital outlay; the net revenue from the Khushdil Khan Reservoir was Rx. 1,979, equal to a return of 2·20 per cent. on the capital expended.

The area irrigated by these two works was 6,251 acres.

BUILDINGS AND ROADS.

Buildings and Roads.

The buildings and roads branch of the Public Works Department embraces all the operations of the Department which are not classed under the special heads of Railways and Irrigation. It includes the extension and maintenance of the road system, the construction and repair of all the buildings required for the proper discharge of the functions of government in all its branches, and a large miscellaneous class of works of public improvement, including light-houses, harbours, embankments, boat bridges, and ferries, and the water supply and sanitation of towns.

The operations of this branch of the Department are classed primarily under two divisions, viz., military and civil works. The military works are executed entirely from Imperial funds.

The expenditure on civil works is chiefly met from provincial and local resources. The classification of the expenditure for 1893–94 under the heads referred to is shown in the following table:—

	Imperial.	Provincial.	Local.	Total in India.	Expenditure in England.	Exchange.	Grand Total.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Military Works - - -	1,154,268	- -	- -	1,154,268	15,965	10,375	1,180,608
Civil Works - - - -	690,422	2,116,812	1,677,144	4,484,378	88,411	57,455	4,630,244
Total, 1893–94 - -	1,844,690	2,116,812	1,677,144	5,638,646	104,376	67,830	5,810,852
Total, 1892–93 - -	1,766,815	2,162,357	1,714,593	5,643,765	126,568	76,147	5,846,480
Total, 1891–92 - -	1,938,845	2,461,115	1,651,761	6,051,721	109,485	47,546	6,208,752

This statement does not include the outlay from Imperial revenues recorded under the head of Special Defence Works, which amounted to Rx. 604,848 in 1891–92, Rx. 458,060 in 1892–93, and Rx. 324,974 in 1893–94.

The greater part of the expenditure from local funds is absorbed by the maintenance and extension of roads. A portion of this expenditure is under the direct control of the Public Works Department, but the larger part of the local funds outlay under the head of Buildings and Roads, as well as a small portion of the provincial outlay, is under the management of the Civil Department, and is not controlled by the Public Works officers.

The extension of local Government in India has thrown a large portion of the smaller class of public works into the hands of the local boards. Speaking generally, the boards maintain their own establishments, but in the case of any works of unusual difficulty have recourse to the professional skill of the Public Works officers.

MILITARY WORKS.

Military Works.

The total expenditure on Military Works, ordinary and special, amounted to Rx. 1,547,405 in 1893–94, against Rx. 1,654.086 in 1892–93. The decrease of Rx. 106,681 was chiefly under the head of Special Defence Works, the cost of which amounted to Rx. 366,797 against Rx. 457,287 in the previous year.

MILITARY WORKS.

The expenditure of Rx. 1,180,608 on ordinary military works included an outlay of Rx. 485,923 on new works, of Rx. 328,931 on repairs, and of Rx. 279,795 on establishment. Under the head of New Works, additions to the barrack and hospital accommodation for British and native troops cost nearly Rx. 250,000, while General Cantonment Works figured at Rx. 114,312, the greater part of this sum being applied to the improvement of the water supply of the large military stations, a work of the highest importance to the health of the troops.

The expenditure of Rx. 366,797 on Special Defence Works was made up as follows :—

	Rx.
Coast Defences - - - - - - -	60,781
Frontier „ - - - - - - -	76,660
Armaments - - - - - - -	126,956
Establishment - - - - - - -	39,075
Tools and Plant - - - - - -	2,217
Suspense - - - - - - -	61,108
TOTAL - - -	366,797

Of the expenditure under Armaments, no less than Rx. 108,354 was appropriated to Coast Defences, while only Rx. 18,602 was devoted to frontier works.

Inclusive of "Armaments," frontier defences cost Rx. 95,262, and coast defences Rx. 169,135. The largest outlay on the latter was at Bombay and Rangoon, smaller sums being expended on the works in progress on the Hooghly, at Aden, and Karachi.

The expenditure on land frontier defences was distributed over various points in the Punjab and Baluchistan, far the greater part of the work, however, being done at Rawalpindi and Attock.

Of the total expenditure on Special Defence Works, Rx. 162,947 was spent in India, and the balance of Rx. 203,850 was applied to the purchase of heavy guns, ammunition, and stores in England. The latter amount includes a sum of Rx. 1,881 contributed by the Imperial Government towards the defences of Aden.

The total amount expended on Special Defence Works up to the close of 1892–93 (exclusive of contributions from Imperial revenues) was Rx. 4,140,438.

CIVIL WORKS.

CIVIL WORKS.

The following statement shows the distribution of the total outlay in India on Civil Works among the different provinces :—

EXPENDITURE in India on CIVIL WORKS in 1893-94.

	India General and Political.	Bengal.	North-West Provinces and Oudh.	Punjab.	Burma.		Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
					Upper.	Lower.					
Expenditure by Public Works Department:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Civil Buildings	53,102	133,553	128,544	133,552	102,653	172,536	60,914	20,172	132,431	174,925	1,112,382
Communications	54,829	82,800	231,393	175,732	110,694	116,817	98,014	247,580	28,798	186,198	1,332,855
Miscellaneous Public Improvements.	5,464	6,613	14,873	17,524	8,276	18,545	874	8,042	2,264	15,178	97,653
TOTAL Works and Repairs	113,395	222,966	374,810	326,808	221,623	307,898	159,802	275,794	163,493	376,301	2,542,890
Establishment	31,639	77,284	122,109	86,539	70,746	58,285	40,087	53,623	58,986	112,283	711,581
Tools and Plant	2,511	2,294	2,824	4,185	5,261	4,551	2,555	5,363	4,477	7,406	41,427
*Profit and Loss, Suspense, &c.	—12,683	—15,060	—12,783	—1,983	5,849	1,279	525	305	10,777	315	—23,459
TOTAL Expenditure by Public Works Department	134,862	287,484	486,960	415,549	303,479	372,013	202,969	335,085	237,733	496,305	3,272,439
Expenditure by Civil Department	6,758	477,488	84,747	15,897	22,107	36,768	16,390	5,023	409,270	137,491	1,211,939
TOTAL Expenditure in India	141,620	764,972	571,707	431,446	325,586	408,781	219,359	340,108	647,003	633,796	4,484,378

* Under this head has been deducted a sum of Rx. 5,471 for outlay in England from Imperial funds and exchange thereon, and Rx. 51 for charges incurred on account of the Indo-European Telegraph Department by the Bombay Public Works Department.

CIVIL WORKS.

The greater part of the outlay by the Civil Department, shown in the foregoing statement, was expended upon communications. The following abstract shows the total sums expended in India, by both the Public Works Department and the Civil Department, under the three heads of Buildings, Roads, and Miscellaneous Public Improvements. As in the previous statement, Military Works are not included.

	By Public Works Department.	By Civil Department.	TOTAL.
	Rx.	Rx.	Rx.
Civil Buildings	1,112,382	104,912	1,217,294
Communications	1,332,855	755,082	2,087,937
Miscellaneous Works	97,653	131,277	228,930
TOTAL Works and Repairs	2,542,890	991,271	3,534,161
Establishment	711,581	170,596	882,177
Tools and Plant	41,427	7,998	49,425
Profit and Loss, Suspense, &c.	—23,459	42,074	18,615
TOTAL	3,272,439	1,211,939	4,484,378

The expenditure in England consists to a great extent of furlough and absentee pay and allowances of military and civil officers of the Public Works Department. It also includes the expenses of the Royal Indian Engineering College at Cooper's Hill, which amounted in 1893-94 to 30,330*l.* (inclusive of 1,484*l.*, the cost of alterations to the College buildings). The revenue of this institution for the year was 25,828*l.* The actual deficit on working account for the year was 3,019*l.*

Bengal.

The expenditure for the year in Bengal in the Buildings and Roads Branch was as follows :—

	Rx.
Imperial (Civil)	31,539
Provincial	268,101
Local Funds	465,332
Total	764,972

The expenditure from local funds was for the most part from the district road funds in the districts subject to the operation of the Bengal Local Self-Government Act.

The Imperial works carried out during the year were only of minor importance.

The works for which funds were provided from provincial and local resources included several large buildings. The principal works taken in hand in and near Calcutta during the year were a large block to provide additional accommodation for the Stamp and Stationery Department, Record Rooms at Alipore, a Veterinary School and Institution at Belgachia, and Deputy Superintendent's and Clerk's quarters at Russa Distillery. The Chemical Laboratory at the Presidency College was practically completed at a cost of Rx. 7,769. The remodelling of the Museum Annexe in Chowringhee road, to adapt it as a picture gallery in connection with the School of Art, was also finished, and the exhibitions of the Photographic and Art Societies were held in the buildings. In the High Court the under-pinning of the south walls to arrest their further settlement was successfully carried out.

At Faridpur additions and alterations to the Collectorate buildings were brought near completion. At Champaran a new building for the Settlement Officer was in hand, and the scheme for the supply of water from the canal to the

the Arrah Jail was carried out. Progress was made at Halursinga, the new headquarters of the Angul district, with the buildings required for the accommodation of the District Officer, and for the Police, Forest, and Engineer Departments. CIVIL WORKS.

The total length of road communication maintained by public authorities in Bengal during the year 1893-94 was 35,548 miles, of which 4,156 miles were metalled roads. The expenditure on road communication by the Public Works and Local Officers amounted to Rx. 420,394. Among the more important roads under construction may be mentioned the Ranchi-Chaibassa and the Lebong roads. The latter is a continuation of the Darjeeling Hill cart-road. A commencement was made with a series of feeder roads to the Bengal Duars Railway.

The establishment of works for the supply of electric light to the town of Calcutta was in contemplation, and steps were taken towards obtaining the necessary legal powers.

Archæological research also received some attention. Measures were taken for the excavation of the site and remains of Asoka's classic capital of Pataliputra, near Patna.

Much damage was done, especially to the roads and bridges, in the Darjeeling division, by the abnormally heavy rainfall and numerous storms of the year. A storm wave also caused loss of life and property in the Noakhali district.

The expenditure in the buildings and roads branch of the North-Western Provinces and Oudh showed a considerable decline from the outlay of the previous year. North-Western Provinces and Oudh.

The figures for 1893-94 are as follows:—

	Rx.
Imperial (Civil) - - - - - - -	16,922
Provincial - - - - - - - -	303,469
Local - - - - - - - - -	251,316
	571,707

Among the most important of the works executed during the year were the gangrene ward in the Lady Lyall Hospital at Agra, a female hospital at Farukhabad, and a Bacteriological Laboratory at Mukhtesar in the Naini Tal district. New kacheri buildings were in progress at Naini Tal, and the Bar Library and Barristers' and Pleaders' Chambers attached to the High Court Block at Allahabad were completed at a total cost of Rx. 8,770.

An extensive landslip occurred in September and October 1893 on the right bank of the Birhi Ganga river, near the village of Gohna, in the Garhwal district, forming a dam across the valley of the river. The result was the formation of a large lake, which, it was foreseen, would eventually overtop the dam, and cause a heavy flood in the valley of the Alaknanda and Ganges rivers. Measures were accordingly decided upon to minimise injury to property and prevent loss of life by (i) the construction of a telegraph line along the valley to give timely warning of the approaching flood, (ii) the diversion of the pilgrim route from the threatened valleys, (iii) the dismantling of bridges, and (iv) the establishment of a system of patrols. These measures were successfully carried out.

An expenditure of Rx. 16,220 was incurred during the year under review on works of public utility by private individuals and from private contributions.

In the Punjab the expenditure on Civil Works amounted to Rx. 431,446, of which Rx. 51,931 was met from Imperial Funds, Rx. 275,191 from Provincial Funds, and Rx. 104,324 from local resources. Punjab.

The Civil Buildings executed from Imperial Funds included no work of note. The expenditure of the year was to a large extent incurred in the purchase of the "Snowdon" estate at Simla, and the improvement of the Viceregal and Secretariat Buildings. There was also some expenditure on buildings at the new Kuram Cantonment.

The outlay on communications from Imperial Funds was confined almost entirely to the North-West Frontier road.

The expenditure from Provincial Funds on Civil Buildings was high in comparison

Civil Works

comparison with that on communications. This was mainly due to the large outlay on completion of the restorations of the Lawrence Military Asylum Barracks at Sanawar, and the Central Jail at Montgomery.

The Victoria Jubilee Institute or Museum at Lahore was completed, and the occasion was marked by holding therein the second Punjab Exhibition of Arts and Manufactures. The Dufferin Hospital at Delhi was also finished.

At the close of the year there were 2,504 miles of metalled road and 24,240 miles of unmetalled roads in the Punjab.

The scheme for improving and metalling the Dera Ismail Khan-Tank-Murtaza road was in rapid progress.

The only new roads under construction from Provincial Funds were 10 feeder roads to stations on the Delhi Umballa-Kalka Railway.

On the Kangra Valley, cart-road progress was made with the bridging of the Guj torrent and training works in connection therewith. Steps were taken for protecting the Grand Trunk road from floods near Wazirabad, and a new girder bridge over the Ghelum at Kohala was in progress. The year was marked by abnormally high floods in the Chenab which burst the protective bunds, and inundated the Civil Station at Muzaffargarh, doing great damage to buildings. Several large bridges were also destroyed by floods in the Jhelum.

The cost of maintaining roads in the Punjab is high, but economy is now being effected by the use of steam rollers.

Boat bridges were as usual maintained at various places on the large rivers, and steam ferry services were worked during the rainy season at Dera Ismail Khan and Dera Ghazi-Khan.

Among miscellaneous public improvements may be mentioned the Amballa water supply project which was in active progress. Progress was also made with the sewage drainage at Delhi, the water supply at Dalhousie, and the river protective works at Pind Dadan Khan and the Beas River.

Burma.

In Lower Burma there was a considerable increase in the Public Works Expenditure over that recorded for the previous year. As usual, the bulk of the expenditure was from Provincial Funds.

The total outlay for the year on Civil Works was Rx. 408,781, of which Rx. 2,093 was met from Imperial, Rx. 325,389 from Provincial, and Rx. 81,299 from Local Funds.

The new Government House at Rangoon, which was commenced in April 1892, is more than half finished. It is expected to cost Rx. 58,582. The central block of the new public offices was completed at a cost of Rx. 86,963. At Insein the new reformatory was in hand, and the Central Jail was completed during the year. The latter work has cost Rx. 92,278, and provides accommodation for 2,000 prisoners.

The total mileage of open roads in Lower Burma was 2,888. Five miles of metalled and 23 miles of unmetalled roads were opened during the year.

In Upper Burma almost the whole of the expenditure was met from Imperial Funds. The total outlay for the year on Civil Works was Rx. 325,586. The Civil Buildings under construction during the year consisted for the most part of court houses, police offices and lines, and jails, a few post and telegraph offices, and hospital buildings were also erected.

Several important roads were in hand. An expenditure of Rx. 12,516 was incurred on the Myingyan-Fort Stedman Road, 182 miles. The Mandalay-Lashio Road, 178 miles, is now open for traffic throughout. Nearly six lakhs of rupees have been expended on its construction and maintenance. There was also some expenditure on the Ruby Mines Road.

Central Provinces.

The expenditure for the year on Civil Works in the Central Provinces amounted to Rx. 219,359, of which Rx. 1,449 was from Imperial Funds, Rx. 183,444 from Provincial Funds and Rx. 34,466 from Local Funds.

The Imperial Works on which expenditure was incurred were of small importance. The Civil Buildings taken in hand from Provincial and Local Funds during the year do not include any building of unusual interest. The new Law Courts at Nagpur were formally opened, and progress was made with new circuit houses, and district court houses at various stations. Expenditure was also incurred in the improvement of the jails at Nagpur, Jubbulpore, Raipur, and Nursinghpur, and in the construction of police quarters.

The expenditure on roads was much the same as in the preceding year.

The

CIVIL WORKS.

The total length of roads maintained during the year was:—

	Miles.
Metalled	1,236
Unmetalled	6,420
TOTAL	7,656

The output of the Warora Colliery during the year showed some increase as compared with the preceding year, but owing to large additions to the working expenses the financial results were not so favourable. The accounts of the colliery showed a net profit of Rx. 2,167 for 1893, equivalent to a return of 1·40 per cent. on capital expenditure. The output of coal was 121,946 tons, and the average selling price was Rs. 4—8—1 per ton.

At the Umaria Colliery the output increased from 94,846 tons in 1892–93 to 104,568 tons in 1893–94. The net receipts for the latter year amounted to Rx. 6,434, and gave a return of 6·46 per cent. on the capital outlay.

The outlay on Civil Works for the year in Assam amounted to Rx. 340,108. This outlay was divided between Imperial, Provincial, and Local, as follows:—

	Rx.
Imperial	108,972
Provincial	160,202
Local	70,934
TOTAL	340,108

Assam.

The expenditure on public works in Assam is mainly devoted to the maintenance and improvement of the roads, the outlay on buildings being comparatively small. Alterations and additions were made to the Government House and Secretariat Press Building at Shillong. The other buildings on which expenditure was incurred in the various divisions of the province were of an ordinary character.

Under the head of communications the only important new works in progress was that of the Nichuguard-Manipur cart-road, which was passable to carts as far as Koluma early in the year. This road will be 132 miles long, and is estimated to cost Rx. 178,394.

The total length of roads in the province was increased by 93 miles. Of this 37 miles represent bridle roads in the Naga and Lushai Hills, while in Lakhimpur 43 miles of fair weather road were completed from Dhakuakhana to the Brahmaputra.

Madras.

The expenditure on Civil Works in the Madras Presidency was as follows:—

	Rx.
Imperial	3,372
Provincial	264,136
Local Funds	379,495
TOTAL	647,003

The most important public work in progress in this province is the harbour at Madras, which is rapidly approaching completion. The north pier head was practically completed during the year under review, and the south pier was well advanced. The total expenditure on this work, which was started in 1876, has now reached the sum of Rx. 1,219,210. Improvements to the Negapatam Harbour, and a new pier at Tuticorin were sanctioned during the year.

Among the more notable buildings on which expenditure was incurred were, in Madras, the New Law Courts which were completed at a cost of Rx. 126,959, the Victoria Technical Institute and Connemara Free Library, and the New Law College. A third storey to the General Hospital was under construction; the Presidency Post Office and the Stamp and Stationery Office were completed, and alterations and additions were carried out at the deputy collector's office, the Engineering College at Chepâk, the School of Arts, the Lunatic Asylum, and the Penitentiary.

In the districts, new residences were completed for the collectors of Ganjam and Anantapur, District Munsifs' Courts at Bellary and Ambasamudram, and a

CIVIL WORKS.

Taluk Cutcherry at Masulipatam. A house and office were built for the head assistant collector, Kistna, and a close prison ward in the Central Jail at Rajahmundry was completed.

The collector's office at Calicut, on which Rx. 20,124 have been spent, was almost completed, and expenditure was incurred on the Government Houses at Ootacamund and Guindy, and on Tirumal Náyak's Palace at Madura.

Many other public buildings of minor importance were in progress.

The construction and repair of roads in the Madras Presidency is to a large extent in the hands of the local boards who maintain their own engineering establishment.

The length of road communication maintained by public authorities in Madras during the year 1893-94, was as follows :—

	Metalled Roads.	Unmetalled Roads.	TOTAL.
	Miles.	Miles.	Miles.
Maintained by Public Works Department -	125	232	357
„ „ Local Authorities -	11,635	9,956	21,591
TOTAL - - -	11,760	10,188	21,948

Two bridges across the Surliyár, in Madura, were completed, and one across the Barliyar, in Coimbatore, as well as two on the Vayittri-Gúdalúr road in Malabar. The total expenditure on the Vayittri-Gúdalúr road up to the end of the year was Rx. 64,450. A number of other road works were in progress, but none were completed in the year.

The Jubilee Museum at Bezwada was practically completed during the year.

Bombay (including Sind).

In the Bombay Presidency the total expenditure on civil works for 1893-94 was Rx. 633,796, of which Rx. 38,657 was met from Imperial funds, and the remainder from provincial and local funds.

The Imperial expenditure on civil works was, as in the previous year, entirely devoted to civil buildings, and the largest outlay was incurred in providing for the wants of the Salt Department.

On the Somali coast the Camel Savárs lines at Dubár were completed, a customs pier was commenced at Berbera, and borings for water were sunk in the vicinity of Dadab, in the Mandaha plain.

The expenditure on civil buildings from provincial and local funds was nearly the same as in the preceding year.

The works carried out or in progress were for the most part of the usual class of buildings required for the accommodation of the various branches of the administration. The maintenance of buildings of archæological interest received considerable attention during the year, and necessary works of restoration and repair were carried out at Chámpáner, Ahmedabad, Bijapur, Balsana in Khandesh, and Tatta in Karachi.

New collectors' offices were completed or in progress at various stations. Quarters for the Assistant Residents at Steamer Point and Aden were commenced, and a court for the Assistant Political Agent at Sadra was finished. Improvements were made to the Government Houses at Bombay and Ganesh Khind. Additions were in progress to the distilleries at Dhulia and Surat, and the erection of a new distillery at Godhra was undertaken. Improvements were carried out to Magistrates' Courts at Byculla (Bombay), Kalyan and Poona. The central jails at Ahmedabad and Hyderabad were nearly completed, and the jails at Dhárwár, Hyderabad, and Bijapur were under improvement. Police lines were constructed in the Surat, Kaira, Poona, Khandesh, Kanara, Ratnagiri, Shikarpur, and Hyderabad Collectorates. At Bombay, Ahmedabad, Poona, and Thana, additions and improvements were made to various educational institutions.

The number of medical works executed was also large, including improvements in the St. George's Hospital and the Jamsetji Jijibhoy Hospital in Bombay, and the commencement of a new Civil Hospital and Medical School at Hyderabad.

The

CIVIL WORKS.

The total outlay on communications, which amounted to over Rs. 24 lakhs, was smaller than in the preceding year. A large number of roads were bridged and metalled.

Among the more important works may be noticed the metalling of the road from Surat to Sachin, the completion of the Kalyan-Dhaisar road, improvements in the Ahmedabad-Bareja and Nadiad-Kapadvanj roads, the bridge over the Mula river on the Poona-Bombay road, and the construction of approaches to the Tapti river on the Dharangaon-Chopda road. Improvements were effected in the Nasik-Trimbak and the Hubli-Sholapur roads. In Kanara a road was constructed from the Mysore frontier to Gersappa, and in the eastern Nara district the spoil banks of the Mithrao Canal were widened.

The total length of road extension under operation by the agency of the Public Works Department was 29 miles from provincial funds, and 205 miles from local funds.

The total expenditure under the head of Miscellaneous Public Improvements was Rs. 2½ lakhs, principally on account of the Dhulia, Hubli, and Panvel Waterworks.

Berar.

The total expenditure from all sources on public works in the Hyderabad Administration during the year under review amounted to Rx. 3,392.

Of the amount allotted to civil works, 26·6 per cent. was absorbed by civil buildings, 54·3 per cent. by communications, and 13·3 per cent. by miscellaneous public improvements.

There were no Imperial works in progress deserving notice. The provincial works included the usual class of buildings required in the administration of Government, as well as the construction and repair of roads. The length of bridged and metalled roads maintained by the Provincial Public Works Department was 968 miles.

The water supply schemes for the towns of Akola and Secunderabad were in progress during the year.

Coorg.

In Coorg there were no works in progress of sufficient importance to call for individual notice. The expenditure for the year on civil works amounted to Rx. 21,810, of which Rx. 19,012 was met from Imperial funds, and the remainder from local resources.

The length of road maintained by the Public Works Department was 178 miles from Imperial funds, and 131 miles from local funds.

NATIVE STATES.

NATIVE STATES.

A full account of the public works operations in the districts under Native administration in India cannot be given owing to the want of information in the case of some of the larger and more independent States. They include, however, many works of great public utility, and some of large size, in many cases carried out by European engineers lent by the British Government.

Central India.

The Imperial outlay for the year in the Public Works Department in the Central India Agency amounted to Rx. 29,110, in addition to which an expenditure of Rx. 12,780 was incurred from local and cantonment funds, and contributions from Native States. The expenditure was chiefly on communications. About Rx. 17,000 was spent by the agency of the Imperial Public Works Department in maintaining or constructing 980 miles of road. The operations of the Public Works Department in the Agency have been much reduced by the transfer to the chief Native States of the care of the metalled roads in their territories, which has been noticed in previous years' reports. The duties of the Public Works Department lie not only in maintaining important lines of communication, such as the Agra and Bombay, Nimach and Mhow, and Nowgong and Sutna roads, and in designing and executing projects within territories which are too intermixed or too impoverished to be treated on the footing of the larger States, but also in advising the States that are capable of executing their own projects as to the direction in which their efforts may be most usefully exerted, and in inspecting the work done by the larger States on behalf of the Imperial Government.

The expenditure in Gwalior amounted to about 13 lakhs of rupees. The most important buildings in progress were the Victoria College and Memorial Hospital.

CIVIL WORKS, NATIVE STATES.

Efforts are being made in the Bhopal and Bundelkhand Agencies to provide short feeder roads to the Indian Midland Railway.

The total length of road communication maintained by the Native States during 1893–94 amounted to 110 miles of metalled road, and 174 miles of unmetalled road.

Rajputana.

The expenditure on public works in Rajputana during the year 1893–94, amounted, so far as is known, to Rx. 348,779, out of which Rx. 314,683 was expended by the Native States. In nearly all the States from which returns are received the works are carried out under the supervision of public works officers lent by the Imperial Government. In Meywar the outlay was Rx. 15,760. The chief works in progress were the Lansdowne Hospital, the new Zenana Palace, and, among irrigation works, the Connaught Bund at Oodeypore. In Marwar the Jaswant Sagar tank and canals, an important irrigation work, is still in progress. The expenditure on this work up to date is Rx. 72,508. The Chopasni tank, which is designed to supply potable water to the city, is also in progress. In Jeypore the outlay on public works amounted to Rx. 77,852. The main expenditure was directed towards irrigation, the largest item being the Chaparwara irrigation works. The total number of irrigation works in this State, completed or in progress, amounts to 134. Among buildings the Raj House at Mount Abu was practically completed. Ulwar expended Rx. 31,519, Kotah, Rx. 47,866, Jhallawar, Rx. 10,531, and Bikanir, Rx. 17,183 on public works. About 1,600 miles of road were maintained by the Native States during the year, and over 700 miles by the Imperial Government.

Madras.

In the Native States under the control of the Madras Government there was no event of importance to notice during the year in connection with public works.

In Travancore the total expenditure was Rx. 150,557, the larger part of which was upon communications. One hundred and fifty-three miles of cart-road were opened for traffic during the year.

In Cochin the outlay was Rx. 32,482.

Bombay.

Leaving out of account the railways, which are dealt with in a separate section, the amounts expended by the Native States in Bombay on public works during the year were generally small, and there were no individual works of unusual importance to be recorded. The most important group of Native States lies in North Gujarát, and covers an area of about 44,000 square miles. Of the Chief States included in this area, Cutch expended Rx. 14,724, and Radhanpur, Rx. 5,256. In the Káthiáwár States the outlay in public works amounted to Rx. 243,296, Bhávnagar heading the list with an expenditure of Rx. 88,943. Various small sums were devoted to public works in Cambay, Rewa Kántha, and Nárukot.

In the groups of Native States comprised in South Gujarat and North and South Konkan, there is nothing in the public works expenditure to call for detailed notice. The largest amount expended was in Sávantvádi, where there was an outlay of Rx. 9,223. The same remark applies to the States in the Deccan and South Mahrátha country. The largest items were an expenditure of Rx. 52,896 in Kolhapur, and of Rx. 15,867 in the Sangli State.

XI.

POST OFFICE AND TELEGRAPHS.

POST OFFICE.

THE receipts and charges of the Post Office for the last two years, as shown in the Finance and Revenue Accounts, are given in the following statement:— POST OFFICE.

YEAR.	Receipts.	Expenditure.	Net Revenue.	Net Charge.
	Rx.	Rx.	Rx.	Rx.
1892–93 - - - -	1,488,863	1,518,556	—	29,693
1893–94 - - - -	1,557,597	1,558,281	—	684

The deficit of Rx. 684 is entirely on postal business. If indirect expenditure in connection with the Post Office were added, on the one hand, and a deduction made, on the other hand, of the charges for the District Post (the receipts under which head are not credited to the Post Office), the net financial result would be a surplus of Rx. 51,798.

The extent of the sphere of operations of the Post Office, and its development during the last three years, are shown in the table in the margin. These figures are exclusive of the District Post, of which the Post Offices increased from 1,307 in 1892–93 to 1,409 in 1893–94, the letter-boxes from 2,595 to 2,647, and the staff of village postmen from 2,924 to 3,047.

YEAR.	Post Offices.	Letter Boxes.	Village Postmen.	Postmen.	Length of Postal Lines.
	No.	No.	No.	No.	Miles.
1891–92 - -	8,617	12,848	3,762	—	77,728
1892–93 - -	8,832	13,292	3,837	9,051	80,472
1893–94 - -	8,978	13,875	3,970	9,185	80,366
Increase in 1893–94 over 1892–93.	146	583	133	134	106

The decrease in postal lines was solely under the head of runner and country boat lines. Under the head of railways there was an increase of 559 miles, almost entirely due to the opening of new sections of railway in various parts of the country. In addition to the 80,366 miles of Imperial Postal lines shown in the statement, there were 33,283 miles of District Post lines, and 707 miles of political lines administered by the Imperial Post Office, so that the total length of the lines over which mails were conveyed was 116,607 miles at the close of 1893–94, as compared with 114,357 miles at the close of the previous year.

YEAR.	Letters (including Postcards).	Newspapers.	Parcels.	Book and Pattern Packets.	TOTAL.
	No.	No.	No.	No.	No.
1892–93 - -	311,014,049	26,637,963	2,169,715	12,149,494	351,971,221
1893–94 - -	326,862,219	26,363,793	2,339,416	14,702,537	370,267,965
Increase - -	15,848,170	274,170	169,701	2,553,043	18,286,744

The general correspondence returns, of which a summary is given above, show an increase of over 18¼ millions of articles carried by post in 1893–94, as compared with 1892–93. Of this increase nearly 11½ millions were due to postcards, which represent nearly one-half of the entire number of communications passing through the post, and about 4¼ millions to letters.

POST OFFICE.

In the Bombay Presidency, including Sind, each person received on an average rather more than two letters, in Burma nearly two, and in Bengal, Madras, the Punjab, and Assam, rather more than one letter.

The letters and postcards despatched from India to the United Kingdom in 1893–94 are estimated at 2,920,744, against 2,855,220 in 1892–93, or an increase of 2·29 per cent. Those received in India from the United Kingdom are estimated at 3,151,357, against 3,081,754 in the previous year, or an increase of 2·25 per cent. Thus the increase in the number of letters and postcards exchanged with the United Kingdom, which followed the reduction of postage in 1891, was maintained, and increased by about 2¼ per cent. in each direction.

The statistics of correspondence exchanged between India and foreign countries are only taken once in three years, alternately in May and November. The percentage of increase in letters and postcards exchanged with foreign countries from May 1890 to November 1893, a period of 3½ years, was 36 per cent., or more than twice as great as the rate of increase in the interval between the statistical periods of 1887 and 1890. This is accounted for by the general reduction of foreign letter postage made by India in 1891, and by the reductions made by other countries about the same time, and after the Vienna Congress, in the direction of uniform rates of foreign postage.

As was the case in 1892–93, the number of parcels exchanged with the United Kingdom formed more than 80 per cent. of the whole foreign parcel traffic. There was an increase of 15,017 in the parcels exchanged through the British Post Office; but a decrease of 687 in those exchanged through the agency of the Peninsular and Oriental Company. The number of parcels sent to and from India so as to reach their destination just before Christmas and the New Year is almost exactly double the average number sent by the rest of the mails of the year. The number of parcels exchanged between India and foreign countries in 1893–94 was 40,327, as compared with 35,847 in the previous year. There was an increase in parcels sent to India from non-European countries of 2,236, one-half of which is due to the importation of cigarettes from Egypt by private consumers.

The receipts from the insurance of letters and parcels rose to Rx. 21,071, as compared with Rx. 19,325 in the preceding year. The number of insured articles was greater by 8·04 per cent. The decrease in the total amount of fees, due to the introduction, from the 1st May 1890, of a limit of Rs. 1,000 to the value for which a postal article can be insured, has now been nearly made up by the increase in the number of articles insured. The amount paid as compensation was Rx. 203, being 1·44 per cent. of the insurance fees, as compared with Rx. 426 and 2·21 per cent. in 1892–93. The number of articles sent by the value-payable post was nearly 1,600,000, and the amount declared for recovery by the Post Office from the addressees was Rx. 1,761,463. Two-fifths of the entire business of the year of this description was transacted in the Bengal circle, which practically means Calcutta. An arrangement with Ceylon for the transaction of value-payable business, which was introduced in 1891, continues to work successfully. The number and value of inland money orders issued in India, excluding transactions with Native States, increased respectively from nearly 8¼ millions and Rx. 17,192,000 in 1892–93 to 8¾ millions and Rx. 18,353,000 in 1893–94, and the commission realised, from Rx. 216,000 to nearly Rx. 230,000. The plan of remittance in use in India is the payment of money orders at the homes of the persons to whom they are sent, a system which only a few European countries have yet adopted, and one which necessarily imposes much responsibility on postmasters as well as on postmen; but experience has shown that the organisation of the Post Office is not unequal to the task which it has undertaken. The average value of an inland money order was Rs. 20. 15. 5., against Rs. 20. 13. 10. in the previous year. The application of the money order system to the remittance of land revenue and miscellaneous Government dues continues to make steady progress in the North-Western Provinces and Oudh, and in the Lower Provinces of Bengal, and it has been extended to the Punjab and the Central Provinces. The revenue money order system was introduced as an experiment into six districts of the Madras Presidency in 1890, but has been discontinued from April 1894, as unnecessary for that Presidency, owing to the ryots being able to pay their revenue through the village headmen. The rent money order system has proved a success in the Lower Provinces of Bengal as well as in the North-Western Provinces and Oudh, and has now been introduced into the Central Provinces.

The

The amount remitted by telegraphic money orders in 1893-94 was Rx.1,247,223, against Rx. 1,160,112 in the previous year. POST OFFICE.

The remittances from India to the United Kingdom by money orders rose from 129,285*l.* in 1892-93 to 166,679 in 1893-94. Those from the United Kingdom to India increased from 78,033*l.* to 84,765*l.*

The deposits in the Post Office Savings Banks rose from Rx. 4,145,243 in 1892-93 to Rx. 4,407,275 in the year under report; the withdrawals from Rx. 3,655,195 to Rx. 4,253,812, and the interest from Rx. 269,409 to Rx. 293,496. The balance at the credit of depositors at the close of 1893-94 stood at Rx. 8,265,732, against Rx. 7,818,773 at the close of 1892-93. The average balance at the credit of each depositor was Rs. 143·98, as compared with Rs. 150·08 in the previous year. Of the total number of accounts nearly 90 per cent. were held by natives. The notification that the rate of interest would, from 1st April 1894, be reduced from 3¼ to 3⅛ per cent. had a very slight effect in reducing the normal rate of increase in the number of Savings Bank accounts.

During 1893-94 the total amount invested in Government securities by Savings Bank depositors through the agency of the Post Office was Rx. 37,910, against Rx. 26,210 in the preceding year; and the balance of securities in the hands of the Comptroller General at the close of the year was Rx. 45,030, compared with Rx. 39,740 on the 31st March 1893. The sales numbered 27, against 26 in 1892-93.

The arrangement for the sale of Government quinine to the poorer classes through the agency of the Post Office, which was introduced as an experimental measure in Bengal, Assam, and Burma, has been extended to several other provinces.

TELEGRAPHS.

The following statement refers to the whole of the telegraph system under the control of the Government of India, but excludes the Indo-European section, extending from Karachi to Teheran, for which, as usual, a separate account is given. The system now consists of 42,707 miles of line, 134,255 miles of wire, and 274 miles of cable. TELEGRAPHS.

During the year Rx. 225,437 were added to the capital expenditure, of which the greater portion was for new lines, the net additions to the system during the year comprising 1,677 miles of line, and 8,004 miles of wire. The total capital outlay at the close of the year stood at Rx. 5,660,008.

The number of telegraph offices open to the public at the end of the year was 3,627, of which 1,224 were departmental or combined offices, 2,393 were on railways, and 10 canal offices; the net addition to the number of offices during the year was 203.

The following statement shows for a period of five years the progress that has been made in extending public telegraphic communication:—

	Capital Expenditure.	Miles of Line.	Miles of Wire.	Miles of Cable.	Offices Opened.		
					Departmental, Ordinary and Postal combined.	Railway and Canal.	TOTAL.
	Rx.						
Up to beginning of 1889-90 -	4,659,722	33,462	99,654	230	797	1,334	2,131
During 1889-90 - - -	167,587	1,817	6,485	–	83	77	160
„ 1890-91 - - -	196,858	1,791	7,373	21	69	17	86
„ 1891-92 - - -	194,212	1,555	6,647	2	52	—33	19
„ 1892-93 - - -	216,281	2,405	6,092	21	99	58	157
„ 1893-94 - - -	225,437	1,677	8,004	–	124	58	182
To end of 1893-94 - -	5,660,098	42,707	134,255	274	1,224	1,511	2,735

TELEGRAPHS.

A general view of the operations of the Department in 1893-94, in comparison with the results of the five previous years' working, will be gained from the following statement:—

YEAR.	Number of Messages during Year.	Gross Receipts, excluding *pro formâ* Revenue.	Charges.	Net Receipts.	Percentage of Net to Gross Receipts.	Dividend on Capital.	Capital Outlay during the Year.
		Rx.	Rx.	Rx.			Rx.
1889-90 - -	3,132,571	658,561	453,644	204,916	31·1	4·24	171,896
1890-91 - -	3,407,100	678,301	468,880	209,421	30·9	4·17	196,858
1891-92 - -	3,808,998	738,028	483,429	254,599	34·5	4·88	194,212
1892-93 - -	3,981,411	756,172	515,699	237,472	31·5	4·37	216,281
1893-94 - -	4,184,790	791,852	530,476	261,376	33·0	4·61	225,437

The whole of the annual expenses connected with the telegraphs in India, whether incurred on capital account for the construction of new lines, or on revenue account for the maintenance and working of the system, are defrayed from the revenues of the Government of India. In 1893-94 the receipts of the Department were sufficient to cover both the working expenses and the amount expended on capital account, and there was therefore no net charge on Government revenues.

The following figures show for the last two years the division of the traffic between State and Private and between Inland and Foreign messages respectively:—

Class of Telegrams.	1892-93.		1893-94.	
	No.	Value.	No.	Value.
		Rx.		Rx.
State Inland - - - - - - - -	604,124	119,941	598,226	109,000
„ Foreign - - - - - - - -	6,164	5,238	6,695	6,114
TOTAL STATE - - -	610,288	125,179	604,921	115,114
Private Inland - - - - - - - -	2,837,513	288,856	3,031,993	305,229
„ Foreign - - - - - - - -	533,610	162,758	547,876	186,752
TOTAL PRIVATE - -	3,371,123	451,614	3,579,869	491,981
GRAND TOTAL - - -	3,981,411	576,793	4,184,790	607,095

The operations of the Department during the year may be considered satisfactory.

The net receipts and the dividend on capital are above the average of recent years, and the traffic shows signs of continued expansion.

The increasing use of telegraphy by the Indian public is gauged by the growth of the inland private traffic, and it is satisfactory to find that in the year under review this class of traffic, when compared with the figures of the preceding year, increased by 6·8 per cent. in number, and 5·6 per cent. in value. The following statement shows the development of the revenue from the inland private traffic for the past 10 years:—

	Rx.
1883-84 - - - - - - - -	141,575
1884-85 - - - - - - - -	150,463
1885-86 - - - - - - - -	163,816
1886-87 - - - - - - - -	181,779
1887-88 - - - - - - - -	198,181
1888-89 - - - - - - - -	223,151
1889-90 - - - - - - - -	227,830
1890-91 - - - - - - - -	245,328
1891-92 - - - - - - - -	269,542
1892-93 - - - - - - - -	288,856
1893-94 - - - - - - - -	305,229

In

In foreign private telegrams there is also an increase, over the figures for the previous year, of 14,266 in number, and of Rx. 23,994 in value. The revenue from trans-Indian traffic, which suffered a considerable diminution in the two preceding years owing to reduction in rates for transit across India, exhibits a satisfactory rise to Rx. 70,968 in the year under review, thus nearly approaching the figure of Rx. 73,155 at which the revenue stood in 1890–91, prior to the change in the transit rates. TELEGRAPHS.

The messages sent in the service of the State constituted rather more than ·14 per cent. of the whole number, and the payments made by the Government on account of them, made up nearly 19 per cent. of the total revenue of the Department.

The following figures show the division of the Inland traffic into the three classes of Urgent, Ordinary, and Deferred, during the last two years:—

	Percentages.					
	Urgent.		Ordinary.		Deferred.	
	1893-94.	1892-93.	1893-94.	1892-93.	1893-94.	1892-93.
State - - - - -	9·74	11·66	19·35	19·00	70·31	69·34
Private - - - - -	5·84	6·04	41·01	42·36	53·15	51·60
Press - - - - -	4·85	5·41	22·46	22·70	72·69	71·89

The deferred class of messages appears to be still growing in popularity.

The strength of the signalling establishment amounted at the close of the year to 3,207, of whom 1,647 were departmental officers, 317 British military signallers, and 1,222 postal clerks.

The speed of transmission of messages over the principal main routes has been well maintained. There is a marked improvement in speed between Calcutta and Rangoon owing to the Melhuish transformer apparatus having been in use on these circuits throughout the year, and the improvement in speed on the Calcutta-Madras circuits is attributed partly to the same cause and partly to the high state of efficiency into which the lines have been brought. The number of complaints received relating to the Indian Telegraph Department was 1,593, equivalent to 0·03 of the total number of messages, of which 881 were admitted. Of those admitted, 177 applied to non-delivery, 209 to delay, and 296 to mistakes. The number of messages that for various causes could not be delivered amounted to 14,395, equivalent to 0·289 of the total number received for transmission.

The total number of interruptions to communications amounted to 2,216, which shows a slight increase over the previous year; the total duration of the interruptions was also greater.

The number of telegraphic money orders rose to 115,440 from 107,256 in the previous year. On the 1st May 1893, the exchange of telegraphic money orders with Ceylon was commenced, and in addition to the figures given above, 281 orders were sent and 1,668 received.

The Inland Press telegrams sent numbered 26,340, of the value of Rx. 10,182, against 25,834, valued at Rx. 9,508, in the previous year. The Foreign Press messages numbered 3,255, and the Indian share of the charges thereon amounted to Rx. 1,689.

As regards electrical improvements, Mr. W. F. Melhuish's apparatus for long-distance telegraphy has fulfilled the expectations which were formed of it. The apparatus has been largely brought into use, resulting already in considerable economy. Towards the close of the year under review Mr. Melhuish succeeded in showing that the auxiliary effect produced by his apparatus in the case of duplex working was also beneficial in quadruplex working, and at the close of the year a circuit so fitted up was opened and satisfactorily worked between Calcutta and Agra, a distance of 841 miles.

The use of the telephone continues to show satisfactory progress. At the end of the year 1893 there were 1,360 subscribers and 1,380 exchange connections to the telephone companies at Bombay, Calcutta, Kurrachee, Madras,

TELEGRAPHS.

Moulmein and Rangoon. There were also 26 exchanges and 205 exchange connections under the control of the telegraph department.

The construction of the Cashmir telegraph line from Srinagar to Astor was proceeded with, but the severe floods of July 1893 necessitated the working party being broken up before the line was completed in a permanent manner.

An interesting event of the year, as affecting India, was the laying of a cable from Zanzibar to the Mauritius *viâ* the Seychelles, thus opening up communication with islands which are intimately connected with Indian commerce.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

The system of Telegraph lines and cables connecting the terminus of the Indo-European Company's telegraphs at Teheran with the Indian Government system at Karachi, is known as the Indo-European Government Telegraph Department, and consists of two parts, one, designated the Persian Gulf Section, extending from Karachi, to Bushire, with a branch to Fâo, where a connection is made with the Ottoman Government line; and the other, called the Persian Section, extending from Bushire to Teheran. It comprises 1,717 knots of cable, 1,377 miles of line, and 3,424 miles of wire, exclusive of the Persian Government line from Teheran to Máshed, 562 miles, which is maintained by the Department.

The administration of the Indo-European Department, which in 1888 was amalgamated with the general Telegraph system of India, was re-transferred to London, with effect from 1st April 1893. It has been found convenient to maintain separate accounts for this department, partly for the sake of comparison with previous years, and partly because the conditions under which the Indo-European lines are worked, and the influences affecting the traffic are completely different from those prevailing on the Indian Telegraph system generally.

The capital account of the Department, which stood at Rx. 1,145,969 at the beginning of the year under review, amounted at its close to Rx. 1,144,619, a decrease of Rx. 1,350, which was due to a reduction of the stores balance.

The financial results of working the Department, as compared with the four preceding years, were as follows :—

YEAR.	Total Capital Outlay.	Gross Receipts.	Expenditure.	Net Receipts.	Percentage of	
					Net Receipts to Capital.	Expenditure to Gross Receipts.
	Rx.	Rx.	Rx.	Rx.		
1889-90 - - - -	1,145,895	109,733	104,756	4,977	0·44	95·4
1890-91 - - - -	1,143,324	106,346	107,220	—874	—	100·8
1891-92 - - - -	1,151,509	116,048	99,844	16,204	1·40	86·0
1892-93 - - - -	1,145,969	130,251	86,484	43,767	3·80	66·3
1893-94 - - - -	1,144,619	135,085	86,060	49,025	4·28	63·7

The traffic actually carried by the Department shows an increase over the previous year of 4,185 words, while the message revenue increased from Rx. 150,825 to Rx. 155,846; but miscellaneous revenue decreased by Rx. 1,206, due chiefly to less realisations in England from the sale of old cable core.

Owing to the Joint Purse Arrangement which has existed since 1878-79 between the Department and the Eastern and Indo-European Telegraph Companies, the amount shown as gross receipts does not correspond with the actual traffic earnings of the Department, which in 1893-94 amounted to Rx. 155,846.

The Indo-European route actually carried 8·64 per cent. more Indian traffic, and 4·67 per cent. less trans-Indian than its fixed share under the Joint Purse Agreement, with the result that 8,142*l.* had to be refunded by the Department to the other partners, against 10,315*l.* in the previous year. The value of Australasian

Australasian traffic actually carried by the Department was 5,124*l.* more than its share due under the Australasian Message Fund Agreement. These adjustments reduced the gross Receipts to Rx. 135,085.

Expenditure was reduced by Rx. 424, which was principally due to less expenditure being necessary on line maintenance in Persia. On the other hand the cost of repairs to the cable steamer "Patrick Stewart" were heavy and were not completed at the end of the year.

The net receipts show an increased profit of Rx. 5,258 over 1892–93, or a total profit of 4·28 per cent. on the year's transactions. If the cost of abandoned lines, &c., had been excluded from the Capital Account the result would have been still more favourable.

The share of Revenue drawn out by the Department under the Joint Purse Agreement has steadily increased since the agreement came into operation, and has in the year under review reached the highest sum yet recorded. The traffic actually carried in excess of the fixed share is also less, and revised percentages for the division of the Indian traffic have recently been agreed upon which will, it is anticipated, reduce the excess payment now made by about 3,000*l.* a year.

The result of the working of the Australasian Message Fund has been that whereas the Department's share of receipts from Australasian traffic in 1889, when the tariff to Australia was 9*s.* 4*d.* a word was 6,235*l.*, its share under the Agreement whereby the through rate has been reduced to 4*s.* 9*d.* was, during the past year, 6,133*l.*, showing how largely this traffic has developed since the rate was reduced.

The general working of the lines *viâ* Teheran during the year was satisfactory, and the average rate of transmission and accuracy of transmission both show an improvement. The Turkish route is, however, still very unsatisfactory, and the line between Constantinople and Fao was frequently interrupted.

The mean rate of transmission of telegrams between the United Kingdom and Bushire, and between Karachi and Teheran, the latter being the Section worked by the Department, during each of the past six years is as follows:—

Year.	Between the United Kingdom and Karachi, *viâ* Teheran.	Between the United Kingdom and Karachi, *viâ* Turkey.	Between Karachi and Teheran.	
			Karachi to Teheran.	Teheran to Karachi.
	Hours. min.	Hours. min.	Min. sec.	Min. sec.
1888–89	1 4	19 28	13 26	13 47
1889–90	0 59	12 14	11 23½	12 28
1890–91	0 59	10 25	18 26	10 26
1891–92	0 59	16 12	8 42	6 25
1892–93	0 45	27 47	5 51	4 26
1893–94	0 43	36 49	5 40	4 28

The renewal of cables, sanctioned by the Government of India in December 1888, was completed in May 1893, and since then the mechanical condition of the Persian Gulf cables is reported to be generally good.

Altogether two total breaks and some partial faults were repaired during the year with an expenditure of 33 knots of cable. At the Manora Cable Factory 24 knots were manufactured and 49½ knots were retaped and repaired.

A diversion of 22 miles was effected on the Mekran Coast Land line between Karachi and Gwadur, from a salt plain near the sea to better ground under cover of a range of sand hills. On 24th January the line was broken at several places for nearly eight days by cyclonic weather all along the coast with heavy rains and floods.

In the Persian section 331 acts of wilful damage were reported, but the cost of repairs has, in each case, been recovered from the Persian Government.

During 1893–94 a disastrous succession of floods occurred in the south of Persia, and the towns of Abadeh and Fasa, besides many villages, were swept away, whilst great damage was done to the city of Shiraz itself. The line was

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

also swept away between Borazjoon and Ahmedy. By the aid of the new Cardew vibrators, however, communication was maintained during a great part of the time, and long and serious interruptions were thereby prevented. The lines stood the extraordinarily severe weather very well, the result comparing favourably with the last severe winter (1885–86).

In May 1893 a serious bread riot occurred at Shiraz, and the telegraph employés and property were in serious danger, but owing to the tact and knowledge of the language and people displayed by the Superintendent, Mr. Fargues, and also to the great respect in which Dr. Scully, the Assistant Medical Officer, is held, no injury was done to the telegraph. By order of the Secretary of State, two shopkeepers of Shiraz who assisted to keep the peace were presented with gold watches and chains in recognition of their valuable services.

The line from Teheran to Meshed has been considerably strengthened, and the Persian Government has promised to give four annual contributions, aggregating Rx. 3,952, for the improvement of the line.

CHAPTER XII.

EDUCATION AND LITERATURE.

EDUCATIONAL institutions in India are of two classes—

(1.) Those in which the course of study conforms to the standard prescribed by the Department of Public Instruction or by the University, and which either undergo inspection by the Department, or else regularly present pupils at the public examinations held by the Department, or by the University. These institutions are called "public."

(2.) Those which do not fulfil the above conditions, and which are called "private."

The system of education operates, generally speaking, through three grades of institutions, viz.:—

(1.) Primary schools, which aim at the teaching of reading, writing, and such elementary knowledge as will enable a peasant to look after his own interests;

(2.) Secondary schools; and

(3.) Colleges.

Bengal. The statistics of 1893-94 show that the number of students in colleges in Bengal has increased since 1892–93 from 5,443 to 6,240. The number of students who appeared at the first Arts examination in 1894 was 2,179, of whom 826 were successful. Of 987 candidates for the degree of B.A. in 1893, 301 passed, whilst in 1894, 484 passed out of 992. For the degree of M.A., 129 candidates presented themselves for examination, and 57 were successful. The total expenditure on collegiate institutions was about Rx. 71,935, of which about Rx. 31,317 was contributed from public funds.

The number of secondary schools rose during the year from 2,326 to 2,373, and the number of pupils from 198,270 to 198,736. The increase occurred chiefly in middle English schools. The total expenditure on secondary schools was Rx. 272,807, of which Rx. 59,432 was public money. Institutions under public management continued to hold the first place, with an average of 59 per cent. of successful candidates at the University entrance examination, the percentage for aided and unaided schools being 38. These figures represent the normal proportion for this examination; in the previous year the percentage was abnormally high.

It is satisfactory to notice that a perceptible improvement is said to be taking place in the *morale* of the pupils, and a taste for physical exercise is slowly growing up amongst the rising generation throughout the Province.

In primary schools the returns show an increase of 258 schools as compared with 1892-93, and the number of pupils has risen by 7,298. The number of upper primary schools has increased during the year, and the returns show a steady growth in the last five years. The expenditure from public funds on primary schools was Rx. 79,563 in 1893, of which Rx. 16,862 was contributed from provincial revenues, and Rx. 57,656 from district funds.

District Boards are beginning to recognise the value of technical education, and to establish industrial schools and found scholarships to enable promising pupils to finish their education at the Engineering College at Sibpur. Drawing was introduced in training schools as a compulsory subject with marked success.

The only point calling for special notice in regard to European education is the large and increasing proportion of scholars in the Roman Catholic schools, which is now more than 52 per cent. of all the European scholars in the province

EDUCATION.

vince, though only about 30 per cent. of the European and Eurasian population of Bengal profess the Roman Catholic religion. The total number of scholars of this class has increased in the last 10 years by more than 33 per cent.

North-Western Provinces and Oudh.

There were 4,902 public institutions in the North-Western Provinces and Oudh in 1893-94, against 4,958 the year before, the decrease being apparently due to the abolition of inefficient primary schools. The number of scholars, on the other hand, shows a satisfactory increase -- from 221,022 to 232,806. Private schools increased from 5,910, with 68,394 scholars, to 6,386, with 68,803. The percentage of male scholars to male population of school-going age is still deplorably low—7·93 per cent.—while the corresponding percentage in the case of girls is only ·37.

The expansion of University and High education observed in 1892-93 has been maintained, the number of University students being now 2,922 as against 2,641, while there are 2,678 in the high stage, against 2,458. Of 27 candidates for the M.A. examination, 19 passed; of 219 for the B.A., 148; and of 503 for the intermediate, 215—figures which are, on the whole, satisfactory.

There were 114 Anglo-Vernacular schools, of which 38, with 7,213 pupils, were Government schools, and 76, with 12,698 pupils, were aided. Under the head of vernacular middle schools for boys there has been a decrease in the number of schools from 315 to 305, due to the abolition of inefficient middle classes, and an increase in the number of pupils from 27,729 to 29,507. Vernacular primary schools show a similar falling-off in number (3,878 to 3,862) but increase of pupils (140,395 to 148,629).

The total expenditure incurred by public institutions during the year was Rx. 361,293, against Rx. 344,689 in 1892-93. The increase was chiefly met from subscriptions and endowments, as the expenditure from public revenues in 1893-94 was only Rx. 2,842 higher than in 1892-93.

This is the first year in which the teaching of science and drawing in certain selected schools has been tested by the School Final Examination. The results are, under the circumstances, not unsatisfactory, 50 candidates passing out of 84.

Punjab.

There were in the Punjab, in 1893-94, 84 more schools and colleges, and 10,326 more scholars, than in the previous year. Thus the falling-off in 1892-93, which was attributed chiefly to the unhealthiness of the year, has been made good. In round numbers, about 260,000 persons out of a total population of 20,000,000 are being educated to a greater or less extent, and of these about three-fourths obtain instruction in "public" institutions. The proportion of boys who attend school to those of school-going age is about 13 per cent., and of girls 1·7. The total expenditure on schools increased during the year by Rx. 7,317; but while expenditure from Imperial and provincial funds declined, that from municipal funds increased. The number of students who presented themselves at the University Arts Examination was more than double that of the previous year, and about 57 per cent. of the candidates succeeded in passing for the B.A. degree, whilst 12 out of 21 were successful in the M.A. test. The experiment of providing an advanced education through the medium of the Oriental languages, which has been tried by means of the Oriental College, has proved very costly, but is on the whole regarded as successful. It is noteworthy that two-thirds of the students hold scholarships. The number of pupils in secondary schools increased by over 2,000 during the year, and nearly 24 per cent. of the whole attendance belongs to the agricultural section of the people. The Anglo-Vernacular schools are increasing in popularity, because the training which they afford is the likeliest road to the Government Service. Primary schools showed an increased attendance; but the special zemindari schools, which were designed to meet the wants of the agricultural population, do not grow in popularity, and there is a wide demand that they should be converted into ordinary primary schools. Improvement was noticed in the moral tone and discipline of the schools of all classes, and greater attention was devoted to physical training. In female education there were some slight signs of progress, but the prospect was not encouraging.

Burma.

For the first time the annual report for Burma combines the figures for both divisions of the province. A noticeable feature of the year's statistics is that the

the number of students receiving a University education has increased from 46 in the previous year to 76. The results of examinations are less satisfactory, not one out of the nine candidates having succeeded in obtaining the B.A. degree. One girl passed the F.A. examination, heading the list of candidates. Some of the ground lost in the previous year was recovered, and the list o public institutions showed 4,830 schools and 138,934 pupils, against 4,672 schools and 132,367 pupils in 1892-93. There were 183 secondary and 4,614 primary schools, compared with 94 and 4,546 respectively in the previous year. The total number of pupils under instruction rose from 227,558 to 237,550, of whom 25,352 were girls, as compared with 24,355. EDUCATION.

The total expenditure was Rx. 117,631, and advanced by about Rx. 6,000; but the amount spent on primary education declined by about Rx. 3,000. The hostility to secular education, which had been manifested in previous years by certain Buddhist ecclesiastics, still continues. But the number of primary schools under inspection has, nevertheless, increased. Progress is still slow in Arakan.

The year has been marked by striking progress in the Central Provinces. There was an increase of 168 schools and 14,607 pupils, and there are now 2,378 schools and 149,832 pupils, against 2,210 and 135,225 in the previous year, 35,675 new pupils having been brought on the rolls in two years. This increase extends over every grade of education, but is most marked in the highest and the lowest, the number of students at colleges having risen from 83 to 336 during the year, and the number at primary and vernacular schools from 100,192 to 112,330. No great improvement in female education was observed, the total number of female pupils being only 6,722 or ·63 per cent. of the female population of school-going age. The proportion in the case of boys is 14 per cent. The percentage of Hindu boys at school has kept pace with the general advance, but that of Muhammadan boys has increased in a greater degree, and now stands at 41·22. Central Provinces.

The total expenditure has risen; but the greater part of the rise was met from provincial funds and fees, the latter paying 13 per cent. of the total cost of education.

The agricultural class at Nagpur, pronounced by Dr. Voelcker the best in India, continued to make satisfactory progress. Normal schools are on the whole well reported on, but there is still a dearth of candidates to be trained as teachers for secondary schools.

The result of the school final examination of the Allahabad University, introduced into this province in the previous year, was not encouraging. Only one candidate out of eight succeeded in passing.

The number of public schools in Assam in the year under review was 2,751, with 84,881 pupils, as compared with 2,661 schools and 81,985 pupils in 1892-93. Private institutions show a corresponding increase—from 2,983 schools and 88,372 pupils to 3,111 schools and 92,525 pupils. The Arts College at Sylhet, founded in the previous year, had 25 students, an increase of seven. The number of high schools remained unchanged, while middle English schools increased, and middle vernacular schools declined, by one. The results of examinations were on the whole creditable. The number of primary schools for boys increased from 2,349 to 2,420. Female education, though very backward, is making some progress. Assam.

In the Hyderabad Assigned Districts the unhealthiness of the year, bad harvests, and high prices caused the number of schools to decline from 1,376 to 1,326, with a corresponding decrease in the number of pupils from 4,004 to 3,014. At the same time, the average daily attendance increased, and the girls' schools have improved in numbers and efficiency. Berar.

In Madras the year was marked by progress which was rather intensive than extensive, showing itself in greater consolidation and concentration of educational effort. Thus the increase in public institutions was only ·28 per cent., and in scholars only ·66 per cent., against an increase of 5·4 per cent. and 6·2 per cent. respectively in the previous year, the figures for 1892-93 being 20,861 and 668,510, and for 1892-93, 20,919 and 672,915 in 1893-94. The total number of scholars on the rolls of public and private institutions was 749,977. Of these 643,202 Madras.

EDUCATION.

643,202 were boys (or 24·3 of the male population of school-going age), and 106,775 girls (or 4 per cent. of the female population of school-going age).

Colleges and primary and training schools advanced in numbers, while other classes of schools more or less declined. Yet there were fewer students on the rolls of Arts colleges; while the number of pupils at primary schools increased by 1,821, the number of pupils at secondary schools by 2,686, and the number of pupils at special (including training) schools by 66. The results of the University examinations do not on the whole compare favourably with those of the previous year. Twenty-three candidates presented themselves for the M.A. examination, against 15 in 1892-93; but only seven passed, as against 10. For the English division of the B.A. examination there were 697 candidates (658 in 1892-93), and 440 passes (510); for the Second Language Division, 713 candidates (649) and 620 (569) passes; for the Science Division, 727 (594) candidates and 397 (312) passes. The results of the examinations in medicine were not satisfactory, only 33 passing out of 107, as compared with 64 out of 125 in 1892-93. Of 3,386 candidates for the Matriculation Examination 776 passed, the figures for the previous year being 3,369 and 520 respectively, and it was observed that the disastrous results of the first examination held under the new bye-laws in 1892 induced heads of institutions to exercise unusual, but laudable, strictness in the selection of candidates for the examination of 1893.

The number of pupils at public upper secondary schools rose from 26,425 to 27,985, and that at public lower secondary schools from 12,074 to 13,038, although the number of schools fell from 460 to 409. The number of male pupils at primary schools increased from 550,446 to 553,281. This progress is hardly satisfactory, but its smallness is partly due to greater strictness in the rules regarding the recognition of schools, resulting in the collapse of inefficient institutions.

Female education shows an advance of only 1·7 per cent., the lowest during the last five years. More stringent rules, and want of funds, are assigned as the causes.

The total expenditure on public institutions for the year was Rx. 614,474, of which 30·80 per cent. was met from provincial funds, 28·48 from fees, 23·70 from other sources. The proportion borne by fees has declined by 1·3 per cent. from the figures of 1892-93.

Bombay.

The total number of public and private educational establishments in the Bombay Presidency was 12,752, with 666,034 pupils, as compared with 12,607 institutions with 646,382 pupils in 1892-93. To this total 9,939 public institutions contributed 594,510 pupils, of whom 523,139 were boys and 71,371 girls, showing an increase of 145 in the number of institutions, 16,111 in the number of boys, and 3,030 in the number of girls, over the figures of the preceding year. The chief increase is in the primary grade, which shows 137 more schools and 16,773 more pupils than in 1892-93. Pupils in secondary schools have increased by 2,388, and those in professional colleges by 114; while in Arts colleges, training colleges, and all special schools, there has been a slight decrease.

On the generally received assumption that the population of school-going age forms about 15 per cent. of the total population, the above figures yield the following percentages for 1893-4, those of the preceding year being added in brackets:—

Percentage of *all* scholars, male and female, to population of school-going age - - - -	16·55	(16·06)
Percentage of *male* scholars to male population of school-going age - - - - - - -	28·25	(27·50)
Percentage of *female* scholars to female population of school-going age - - - - - -	4·08	(3·87)

The number of Muhammadan pupils increased by 4,753.

The total expenditure amounted to Rx. 671,115—an increase of Rx. 7,596 being borne by provincial funds and fees, while the expenditure from local cess, municipal funds, and "other sources," actually decreased. The percentages are as follows:—provincial revenues, 29·8 (29·7); fees, 21·5 (20·9); Native States

States, 13·4 (12·4); municipal rates, 5·5 (6·2); local cess, 13·9 (14·3); "other sources," 15·9 (16·5). Of the total expenditure, primary education absorbed 50 per cent. EDUCATION.

The degree of B.A. was obtained by 134 candidates, against 110 in the preceding year; but the number who passed their first B.A. fell from 82 to 7. The matriculation examination was passed by 580 out of 1,661, against 917 out of 1,571 in the previous year.

The results of the year in Coorg are on the whole satisfactory, the number of pupils having risen from 4,830 to 4,985, with an increase of 2 per cent. in fees. Coorg.

LITERATURE AND THE PRESS.

Act XXV of 1867, passed by the Governor General's Council for the regulation of printing presses and newspapers, provided, amongst other things, that every book or paper printed within British India shall have printed legibly on it the name of the printer and the place of printing, and (if the book or paper be published) of the publisher and the place of publication. It also made provision for the registration of every book, pamphlet, map, &c., printed or lithographed in British India. LITERATURE.

The total number of English newspapers published in Bengal during the year 1893–94 was 53, and that of English periodicals was 21. There were 52 vernacular newspapers. The number of publications received in the Bengal Library was 2,067, against 1,675 in the preceding year. Of these 282 were in English, 519 were periodicals, 238 bi-lingual and 1,310 uni-lingual; of the last class 1,155 were original works; of which 677 were in Bengali, 226 in English, 72 in Hindi, 51 in Sanskrit, 98 in Uriya, and 14 in Urdu. Of the original works 247 dealt with "Language," 141 treated of "Religion," and 113 of "Science," 124 were "Poetical," 40 "Dramatic," 70 "Historical Compositions," and 69 were "Fictions." Bengal.

During the year 2,001 publications were registered under the Act, against 1,763 in 1892–93.

In the North-West Provinces and Oudh, 26 new papers were started during the year, and 17 ceased to be published, leaving 87 on the register. The majority of papers are weekly publications. North-West Provinces and Oudh.

Of works in English there were 90 publications during the year, as compared with 61 in 1892–93; and in Hindi 306, as compared with 208. Sanskrit, Arabic, Persian, and polyglot works, on the other hand, decreased.

The number of English works published during the year was 90, or 29 more than in the previous year.

The total number of publications was 1,117; as against 902 in 1892–93. The main increase was in works in English, Urdu, and Hindi.

In the Punjab 79 newspapers were published during the year, of which 18 had a circulation of 500 copies or upwards. The Tribune, the only English paper, had a circulation of 1,400 copies. The total number of publications registered under Act XXV of 1867 was 1,452, of which 366 were re-publications and translations; 223 were of an educational character; 796 were in Urdu, 218 in Punjabi, 77 in English, 76 in Hindi, 44 in Persian, 48 in Arabic, and eight in Sanskrit. Punjab.

Fifty-two publications were registered during the year in Burma, against 47 in 1892–93. Of these, 12 were of an educational character; religion was the subject of 29, language of 11; four were poetical compositions; six were re-publications or translations. Seven of the publications were in English, 14 in Burmese, five in English Burmese, one in Pali, 17 in Pali-Burmese, and three in Shan. Burma

The total number of periodicals published in Burma, irrespective of the daily advertising sheets, was 26.

Ten vernacular and English newspapers are published in the Central Provinces. Twenty-six publications were registered during the year, of which Central Provinces.

LITERATURE.

two were in Hindi, 14 in Marathi, six in Hindi and English, and four in English.

Assam.

Only 11 works were registered in Assam during the year, against 19 in 1892-93. Of these, six were educational. Of the three Bengali newspapers which were in existence at the close of the previous year one only—a fortnightly publication—still survives.

Berar.

The number of books registered in Berar was 24, against 21 in the previous year.

Madras.

There was considerable decrease in the number of publications registered in Madras during the year, the total number being 806, as against 982 registered in 1892-93. The number of books and pamphlets was 642, and that of periodicals 164. Out of the total number 596 were original works, 143 re-publications, and 67 translations. Reprints (without alterations) are no longer brought for registration; and works which are re-published or translated are generally of some value. 187 were published in English; 459 in the vernacular languages spoken in the Province. Of the latter publications those in Tamil (208) take the foremost place, while those in Telugu (177) rank next. There were only 87 poetical works, as against 163 the previous year. Religious publications numbered 280. A few works on music appeared during the year, their appearance being probably, to some extent, due to the foundation of the Madras School of Music. 231 works were copyrighted, against 272 in the previous year.

Bombay.

The total number of publications registered in Bombay during the year was 2,130, as against 1,368 in 1892-93—viz., 1,145 books and 985 periodicals. Of these 593 were original works, 235 re-publications not previously registered, and 201 translations. The number of books published in English rose from 82 to 113, and that of English periodicals from 95 to 197.

Gujarati works numbered 274, and Mahrati 265, as against 430 and 405 respectively in the previous year. Publications in Urdu rose from 41 to 97, and those in Hindi from 21 to 44. In the classical languages there were 56 Sanskrit publications, 14 in Persian, 11 in Arabic, and one in Hebrew.

The number of works registered for copyright during 1893 was 404, against 322 in the preceding year. Of these 377 were private and 27 were Government publications. The literary productions of 1893 were above those of the previous year, both in quality and quantity.

At the end of the year under review there were in all 160 newspapers and 30 periodicals treating of current matters, against 148 newspapers and 28 periodicals of the previous year.

Ajmere-Merwara and Coorg.

No publications calling for special notice appeared during the year in Ajmere-Merwara or Coorg.

CHAPTER XIII.

EMIGRATION AND MIGRATION.

EMIGRATION.

Calcutta.

Eight agencies (seven British and one Dutch) were engaged at Calcutta in 1893, in collecting and despatching labourers to the Colonies, with the following results :—

Colony.	Required.	Supplied.
Demerara	5,450	4,959½
Trinidad	1,800	1,807
St. Lucia	150	150
Jamaica	472	469⅓
Mauritius	465	350
Natal	361	547⅓
Fiji	700	750
Surinam	1,112	1,034⅓
Total	10,510	10,068

The demands were in all cases, except Demerara, less than in 1892. The terms on which emigrants were engaged continued to be the same as in the previous year, except with regard to St. Lucia, where the alterations had reference chiefly to the rates of wages payable at certain ages, the period for which rations would be supplied, and the cost of such supply, having regard to the age of emigrant.

The number of recruiting licenses rose from 857 to 866, six of which were cancelled on account of misconduct, as compared with two in the previous year. The number of emigrants registered during the year was 15,046, the percentage recruited in Bengal and Behar being 31·11 as compared with 29·82 in 1892. The transfer of the recruiting ground from these provinces to the N. W. P. and Oudh, which was noticed in recent years, appears to have been checked. Only in the Shahabad District was there much competition between recruiters for the colonies and those for the Indian labour-districts; it is generally found that Hindustanis prefer, or are preferred for, the colonies, while Bengalis largely resort to Assam.

Of the total number of labourers registered, about 14 per cent. were either rejected for various reasons, or died or deserted, the remainder being forwarded to the Agencies' depôts. There was some improvement in the proportion of emigrants received at the depôts who were finally accepted as fit for labour in the colonies. This matter receives close attention, since the position of expectant emigrants who have broken up their homes and have to be dismissed with a small gratuity, is a very miserable one.

The health of coolies at the depôts, and the sanitary arrangements, are reported to have been very satisfactory. There was a marked absence of cholera and small-pox. The principal cause of sickness and mortality was chest affections, though in these, as in other diseases, there was a considerable reduction in 1893.

The detention of emigrants in the depôts for periods exceeding one month was less frequent than in the previous year; the cause in all cases was delay in the arrival and equipment of chartered vessels, or sickness in the

EMIGRATION

depôt. The proportion of female to male emigrants was high, and in some cases considerably exceeded the prescribed 40 per cent.

The aggregate savings of the emigrants who returned to India during the year (5,173 in number) amounted to 7,21,986 rupees, which gives an average of 139 rupees per head. The best result was found amongst those who came from Natal, who brought an average of over 297 rupees each. By far the lowest average, viz., 16 rupees, was saved in Mauritius.

Natal and Mauritius were the only colonies which drew supplies from Madras during the year. Six shipments were made to the former, numbering 1,847 men, women, and children, the percentage of women to men being 39·9. The treatment of the coolies was very satisfactory.

328 coolies returned from Natal, whose savings amounted to 45,000 rupees; and 805 from Mauritius, whose savings amounted to 8,098 rupees only.

MIGRATION.

Burma.

Neither emigration from, nor immigration into, Burma presented any special features.

Assam.

The Inland Emigration Act of 1882 was amended in 1893 after prolonged and exhaustive discussion, extending over more than four years. The main objects of the revised Act are:—(1) to prevent and remedy abuses in the system of recruiting labourers; (2) to strengthen the control of the Local Administration over unhealthy estates, with a view to the enforcement of sanitary improvements; (3) to restrict, as far as practicable, the penal contract system sanctioned by the Act. Under the third head the maximum term of the labour-contract has been reduced to four years, or, if it has not been executed in the presence of a Government officer, to one year.

The total number of immigrants of all classes into Assam during 1893 showed a decrease on the figures of the previous year of about 9 per cent., due probably to the abnormal importations of 1891 and 1892. The main supply of coolies was, as usual, derived from Chota Nagpur, but recruitment also improved in Bengal proper. There was a large decline in the number imported from Madras, which is ascribed to the favourable season and the quantity of work available in Ganjam, the district from which the emigrants are drawn.

The most striking feature in the year's report is the continued development of free emigration. The mortality on the Dhubri route leading to the tea-gardens of the Assam Valley fell from 47 to 3. On the Goalundo route, which leads both to the Assam Valley and to the Surma Valley, the mortality was normal, while in Cachar there were fewer deaths than usual. Complaints of kidnapping and fraudulent recruitment were in all cases carefully investigated, and the proportion of charges found to be true was again insignificant. The contracts executed at the Dhubri depôt were, as usual, for the most part for the full term of five years; those entered into at the gardens were in an increasingly large degree for one year only. In future there will, of course, be no more five-year contracts.

The labour-force rose during the year from 461,647 to 478,293. The conduct of the labourers was neither better nor worse than usual, but the number of desertions was large amongst both Act and non-Act labourers. It is found that the unhealthiness of particular gardens is the most frequent cause of desertion. The death-rate for the year was abnormally low. Seventy-five gardens were classed as unhealthy, as against 143 in the previous year.

XIV.

TRADE AND MANUFACTURES.

(Detailed information regarding the Trade of British India being annually furnished in a separate Parliamentary Paper, a brief Review only is given in the present Chapter.)

TRADE.

TRADE.

THE total trade of British India with other countries by sea and land during the five years ending on the 31st March 1894, was valued as follows :—

	Tens of Rupees.				
BY SEA.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.
Private Imports :					
Merchandise - -	66,560,121	69,034,900	66,587,457	62,605,030	73,956,957
Treasure - - -	17,459,301	21,919,486	14,722,662	17,009,810	18,425,256
	84,019,422	90,954,386	81,310,119	79,614,840	92,382,213
Private Exports :					
Merchandise - -	103,396,862	100,135,722	108,036,010	106,535,997	106,447,590
Treasure - - -	1,841,920	2,071,906	3,143,186	6,928,994	4,024,737
	105,238,782	102,207,628	111,179,196	113,464,991	110,472,327
Government Transactions :					
Imports Stores - -	2,637,368	2,940,470	2,844,926	3,660,247	3,064,475
Imports Treasure -	200	15,000	0	0	36,000
Exports Stores - -	63,536	91,626	137,582	59,479	55,779
Exports Treasure -	64,402	51,272	143,500	29,929	75,455
	2,765,506	3,098,368	3,126,008	3,749,655	3,231,709
TOTAL Trade by Sea -	192,023,710	196,260,382	195,615,323	196,829,486	206,086,249
BY LAND.					
Imports - - -	3,793,701	4,025,305	4,249,592	3,895,389	4,351,251
Exports - - -	9,210,625	4,642,478	4,067,644	3,594,690	3,698,321
GRAND TOTAL of Trade by Land and Sea -	201,028,036	204,928,165	203,932,559	204,319,566	214,135,821
Excess imports of treasure - - -	15,553,179	19,811,308	11,435,976	10,050,187	14,361,064
Net excess of exports over imports of merchandise, Government transactions, and treasure - - - -	20,126,654	9,057,843	27,123,285	29,978,613	14,467,943
India Council Bills paid in India - - -	22,609,765	19,090,630	23,248,600	26,977,500	16,422,700*

* During 15 weeks of the year 1893-94 no Council Bills were sold.

TRADE.

India's trade was affected by two measures taken by the Government during the year; first, the Indian mints were closed to the free coinage of silver in June 1893, as a measure preliminary to the ultimate adoption of a gold coinage; secondly, an *ad valorem* duty, amounting in most cases to 5 per cent., was imposed on imports, with the exception of cotton goods and some few other articles. These duties took effect in March 1894, after the ordinary import trade of India had been free from all duties for 12 years. The closing of the mints disorganised for a time important branches of India's trade; the effect of the import duties was hardly felt until after the end of the year. As soon as the mints were closed, the rate of exchange between England and India rose; importers put their goods on the Indian market as fast as possible; the sale of Council Bills ceased for a time; and large quantities of silver were sent to India. The export trade from India, for a time, showed a serious shrinkage, especially the trade in yarns and grain. By the end of the year the rate of exchange between England and India had fallen again; commerce had adjusted itself to the new conditions, and trade had resumed its ordinary course. The period of transition from June 1893 to March 1894 had a serious effect on the trade of the year 1893–94.

Among the chief staples of the import trade, cotton manufactures showed a large increase of 26 per cent. in value over the previous year, which had been a time of specially short imports of cotton goods. Among the 17 large staples of the import trade only two, namely, coal and provisions, showed a decrease as compared with the previous year. The increase over the imports of the previous year was, in spices 40 per cent., in salt 37 per cent., in woollen goods 24 per cent., in petroleum 22 per cent., and in metals 15 per cent. The great increase in the import of cotton goods was due not only to the currency changes, but also to the lowness of stocks caused by the strikes in England and the small imports of the year 1892–93.

While the imports were unusually large, the exports of merchandise showed a small decrease in comparison with the previous year. The exports of rice and wheat shrank 21 per cent., partly by reason of a short rice harvest in Burma, but mainly in consequence of the low price of food grains in Europe and the world generally. Though the wheat harvests were good, yet the wheat despatches from India were only 608,000 tons, as against 1,515,000 tons in the year 1891–92. The exports of manufactured cotton goods, chiefly to China, were 24 per cent. less than in the preceding year, mainly because of the disturbance caused by the currency changes; this trade appears to have subsequently adjusted itself to the new circumstances, for the latest statistics show the value of exports of Indian cotton manufactures during the first nine months of 1894–95 to have been 23 per cent. above the value for the corresponding period of 1893–94. There was a decrease of 13 per cent. in the value of opium exports, caused by the bad poppy harvest of the last few years. There was an increase in the value of exports of cotton, hides, and tea. But the largest increase was under oilseeds, the value of which exceeded the corresponding figure of 1892–93 by 44 per cent., and was far in excess of the exports of any previous year. Oilseeds now constitute the most valuable of India's staple exports. Despite some fall in prices the value of exports of oilseeds has gone up from Rx. 7,205,000 in 1882–83 to Rx. 16,753,000 in the year 1893–94.

The value of the chief articles imported to, and exported from, India in the years 1892–93 and 1893-94, exclusive of treasure and re-exports, is as follows:— TRADE.

VALUE OF IMPORTS (exclusive of Treasure).

	Tens of Rupees.	
	1892–93.	1893–94.
Cotton woven goods	22,942,000	29,269,000
Metals and hardware	6,599,000	7,580,000
Oils, chiefly petroleum.	2,919,000	3,570,000
Silk, raw and manufactured	2,817,000	3,188,000
Cotton yarns	2,683,000	3,109,000
Sugar	2,625,000	2,824,000
Machinery and mill work	2,359,000	2,518,000
Provisions	1,862,000	1,783,000
Chemicals, medicines, dyes	1,615,000	1,837,000
Woollen goods	1,523,000	1,892,000
Liquors (alcoholic, including beer)	1,447,000	1,458,000
Apparel	1,383,000	1,578,000
Railway material	1,032,000	1,243,000

VALUE OF EXPORTS (exclusive of Re-exports of Imported Goods).

	Tens of Rupees.	
	1892–93.	1893-94.
Raw cotton	12,743,000	13,297,000
Rice	12,259,000	10,247,000
Oilseeds	11,631,000	16,753,000
Jute, raw and woven	11,182,000	11,966,000
Opium	9,255,000	8,019,000
Wheat	7,440,000	5,194,000
Cotton yarns	6,773,000	4,974,000
Tea	6,292,000	6,585,000
Hides and skins	5,591,000	5,801,000
Indigo	4,141,000	4,182,000
Coffee	2,066,000	2,002,000
Cotton woven goods	1,327,000	1,268,000
Wool, raw	1,117,000	1,080,000

Among the maritime Provinces of India the Bombay Presidency had 37·72 per cent. of the foreign trade in merchandise, Bengal had 39·45 per cent., Madras had 9·82 per cent., Burma had 6·89 per cent., and Sindh had 6·12 per cent. The volume of Bengal trade exceeded that of Bombay, though the latter had enjoyed the larger trade for several years past. The increased importations of cotton goods, in which Calcutta has the largest trade, and the decrease in exports of Bombay cotton manufactures, explain the change. The proportion pertaining to Burma is smaller than in the preceding year by reason of the great decrease in rice exports and consequent depression of trade. Among the

TRADE.

chief seaports Bombay had 43 per cent., Calcutta 35·52 per cent., Rangoon 5·4 per cent., Madras 5·13 per cent., and Karachi 5·75 per cent. of India's total foreign trade in merchandise and treasure. The greater part of the trade in treasure belongs to Bombay; in merchandise, Bombay and Calcutta are more nearly equal, the former showing 68 millions and the latter 70 millions as the total value of their export and import trade.

The net imports of treasure were very large, partly in consequence of the desire to anticipate the closing of the mints. Since the beginning of the current year imports of treasure into India have greatly decreased. The statistics for the first nine months of 1894-95 show a net importation of Rx. 360,000 of treasure into India, as compared with a net import of Rx. 10,980,000 during the same months of 1893–94.

MANUFACTURES.

MANUFACTURES. General.

The domestic industries of India, such as weaving and spinning, pottery, brass-work, iron-work, and art work of many kinds, continue to be practised after ancient methods all over the continent of India. But Indian fabrics and products, made on a small scale by workers at their homes, have for years past been giving way before the cheaper cotton yarn and fabrics, and the iron or steel products of British factories. Meanwhile, without any protection, favour, or advantage other than is afforded by cheap Indian labour and by the production of raw materials in India, an important manufacturing industry has been growing up, and steam-power factories are at work, among which those for spinning and weaving cotton, for spinning and weaving jute, for making paper, for husking and cleaning rice, for sawing timber, and for brewing beer, are the most important. Steam power is also largely employed in factories on tea gardens and indigo estates.

There were, at the end of the year 1893–94, 136 cotton mills worked by steam, of which six were opened during the year; 94 of the mills were in the Bombay Presidency; and the whole represented a nominal capital of more than Rx. 12,500,000. These cotton mills employ over 130,000 hands. They contained 29,362 looms and 3,538,577 spindles. The cotton mills of India are said to use yearly 4,100,000 cwts. of cotton, costing about Rx. 10,250,000; and to spin about 373 million lbs. of yarns. Of this yarn 170 million lbs. are exported to China, Japan, and Africa; 129 million lbs. are sold for hand-loom weaving in India; and 74 million lbs. are woven into piece-goods at Indian mills. Of the woven goods made at Indian mills, one-sixth is exported and the remainder is consumed in India. The total value of the cotton yarns and woven goods produced at Indian mills is estimated at about Rx. 16,000,000.

The number of jute mills increased during the year from 27 to 28; all but two are in Bengal. The nominal capital of these mills is about Rx. 3,500,000. They employ 69,000 hands, on 9,590 looms and 192,688 spindles.

Fifty-eight rice mills for husking and cleaning rice, and 69 saw mills, most of which were in Burma, employed about 38,000 hands; the amount of white or fully-cleaned rice produced by the rice mills continues to increase, while the proportion of cargo or half-cleaned rice exported decreases. The produce of the paper mills, of which there were four in the Bombay Presidency, and four in other parts of India, had increased in value to Rx. 328,000, against Rx. 289,000 in 1889. There were 21 breweries at work, which produced during the year 5,532,000 gallons of beer and porter, or 700,000 gallons more than they yielded in the previous year. The Commissariat Department bought 3,000,000 gallons of this malt liquor, as compared with 2,748,000 gallons purchased in 1892, for the use of European soldiers.

Among

MANUFACTURES.

Among other "large industries," which are shown in the Indian Returns for 1892, may be mentioned:—

Woollen mills	5	Cutch and lac factories	84
Silk mills	8	Oil mills and factories	89
Soap factories	2	Flour mills	146
Tanneries	46	Ice factories	32
Iron and brass foundries	78	Pottery and tile factories	21
Sugar factories (large)	12	Bone-crushing factories	15
Coffee works	31	Tobacco and cigar factories	46
Cotton and jute presses	401	Silk filatures	75
Cotton and woollen factories not classed as mills	14		

Bengal.

Bengal contains jute mills, cotton mills, paper mills, collieries, the only large iron works in India, and the largest pottery factory in India, besides factories for lac, sugar, rope, indigo, and saltpetre, tanneries and foundries. Silk production, indigo-making, paper-making, collieries, the Barrakur iron works, pottery work, and jute industry all did well in Bengal during the work. The lac industry also prospered owing to a rise in price. The production and manufacture of sugar continues to extend; Bengal imports only Rx. 474,000 worth of foreign sugar, compared to Rs. 2,249,000 worth imported into the Bombay Presidency, chiefly from the Mauritius. The manufacture of salt on the Orissa coast was specially slack. Mica mines were worked successfully in the Gaya district and in Chotia Nagpur. Gold prospecting in the latter Province has, as yet, yielded only negative results.

North West Provinces.

Among native industries in the North West Provinces, brass-work, stone-quarrying and stone-carving, and weaving, are the most important; but these Provinces, which contain more large cities than any part of India, possess a great number of flourishing arts and crafts. Of large industries, besides indigo, there are five cotton mills, one woollen mill, and one paper mill.

Punjab.

In the Punjab there are few large industries apart from agriculture. As has been mentioned in previous Statements, the Punjab Government publishes every year a monograph on some one of the principal industries of the Province. The monographs of the four preceding years were upon the brass and copper industries, upon work in gold and silver, upon the fibrous plants of the Punjab other than cotton, and upon the leather industry. No similar monograph was published during the year 1893–94.

Burma.

The large industries of Burma are 53 rice mills, 45 saw mills, one petroleum refinery, five ironworks for working imported iron and steel, not for smelting iron ore; one cotton press, and one oil press. All these are worked by steam. There are also three shipbuilding yards and six cutch factories. Among the more important local and indigenous industries are boat-building, weaving, pottery, gold and silver work, wood-carving, cigar making, *ngapi* or fish-curing, pottery, lacquer-work, brass-work, and marble-work. The boats plying on the Irrawaddy and other rivers sometimes are as large as 100 to 150 tons burden, while many thousands of smaller craft carry rice and other goods on the creeks and rivers, pursue fishing along the coasts, and engage in coasting trade from Chittagong down to Penang. Weaving of cotton, silk, and embroidered goods is carried on by Burmese women in every town and village, and this domestic industry has, as yet, not succumbed to the competition of machine-made goods. The pottery of Burma, though not specially artistic, is yet strong and durable; and the great Pegu jars are much valued up and down the coast, as well as inland. The gold and silver work of Burma are appreciated not only by the Burmese, who are fond of ornaments of this kind, but by European customers. Wood-carving is an art much cultivated, and is employed in the ornamentation of monasteries and private houses, most of which are built of wood, as well as in the adornment of the river craft. Cigar-making is carried on largely by women for home consumption and for export; most of the tobacco used in the Burmese cigars comes from continental India. The curing of salt fish and the making of fish-paste meets a very large local demand, for nearly every Burman family that can afford it eats *ngapi* (fish-paste) with one or more meals daily; *ngapi* is given with the daily meal to prisoners in

MANUFACTURES. Burma jails; and the total traffic in salt fish, dried fish, and *ngapi* in Burma is believed to exceed half a million sterling in value. Lacquer-work is an important industry in Prome and Pagan; gums or oils from certain of the Burma forest trees are used in the manufacture, the basis of the lacquered articles being usually fine bamboo basket-work.

Central Provinces. The large industries of the Central Provinces are five cotton mills, of which one was established in January 1892 and one in August 1892. They contain 876 looms, and 87,944 spindles, and employ 5,348 persons, of whom 3,756 are adult males; the amount of cotton consumed in these mills during the year was 116,951 cwts. The usual domestic industries are practised in the Central Provinces; but there has been of late years much decay of the embroidered and stout cotton cloth home industry for which the Nagpur country used to be celebrated

Assam. The production of tea continues to be the first industry of Assam; the area under tea plants increased to 254,126 acres, or 6,934 more than in the preceding year; the average out-turn of the year rose from 394 to 443 lbs. per acre by reason of the favourable season; but prices of Assam tea in the Calcutta and London markets ruled lower than in the previous year. The number of persons, inclusive of children, working on tea-gardens in Assam is returned at 478,293 against 461,245 in the preceding year; the number of labourers who immigrated during the year 1893 was 50,675 as compared with 56,050 in 1892; the death-rate among all classes of labourers and their families fell from 42 to 33 per mille during the year; the decrease is attributed in part to the season having been healthy throughout Assam. The relations between employers and labourers are said to have been "generally satisfactory; and the treatment of the labour force by employers is reported to have been, on the whole, just and considerate." The land held direct from the State by time-expired immigrant labourers rose from 40,510 to 41,916 acres; the coolies also cultivate considerable areas with rice and vegetables within the limits of nearly all tea gardens.

Madras. Weaving continues to be the most important domestic industry in Madras, though it is declining under the competition of machine-made goods. Eleven cotton mills in the Presidency worked up 244,000 cwts. of raw cotton; and the value of their products in yarn and woven goods was stated to be Rx. 1,070,000. One mill for weaving hempen bags used 45,000 cwts. of hemp. The number of cotton presses in the Presidency rose from 42 to 46. Twenty-one coffee-curing works turned out Rx. 1,270,000 worth of cured coffee. The tanneries of Madras, Madura, Bellary and Vizagapatam continued to produce large quantities of excellent leather, inferior to none in India except the best Cawnpore products. Factories at Madras and in Malabar made large quantities of tiles and cement. Sixteen cigar factories were at work in the Godavari and the southern districts. Indigo is made on a small scale and of inferior quality at some hundreds of vats, and was exported to the value of Rx. 1,026,000 against Rx. 1,144,000 in the previous year. Sugar was made on a large scale at factories near the east coast, at some of which considerable quantities of rum were distilled.

Bombay. In the Bombay Presidency there were 267 steam factories at work at the end of 1893, of which 119 belonged to the city of Bombay; at these factories 126,000 hands were employed, of whom 25,539 were women and 5,753 were children. The spinning and weaving mills were 96 in number. Besides the workshops belonging to the railways and the great steamship companies, 20 factories in Bombay turn out ironwork of all kinds. Among other large factories using steam are four dye-works; two woollen-weaving mills and six wool-cleaning mills; cotton ginning and cleaning mills; four saw mills; five paper mills, one of which is large and successful; seven bone-crushing mills; three rice-cleaning mills; 27 flour mills; and 11 mills for pressing oil.

Of the domestic industries and manufactures conducted after native methods, the chief are hand-loom weaving and cotton spinning, which supply the hand-woven goods still worn by the majority of the lower classes; calico dyeing and printing, gold and silver lacemaking, the making of silk, and of garment pieces partly of silk for women's wear, the weaving of cotton and woollen carpets; brocade work, and embroidery of gold and silver, for which Guzerat, Nasik, and Sind workmen are specially renowned; wood-carving, the art speciality of Guzerat; and sculpture, which is practised in Cutch and Kathiawar; in these

MANUFACTURES.

these three provinces also silver work is done of a special kind and of much excellence. In all parts oil for domestic use, for soapmaking, for lubricating machinery, and for lamps is expressed by labour of cattle and men from castor-beans, sesame, rape-seed, poppy-seed, mhaura or (mhowa) nuts, linseed, ground-nuts, and cocoa-nuts.

Berar.

The only large manufactory in Berar is the steam mill at Badnera, where yarn and cotton cloth are manufactured. It produced 1,632,000 lbs. of twist and yarn, against 996,000 lbs., and 914,000 lbs. of cloth, against 912,000 lbs., in the preceding year. The number of persons employed in this factory was 770, as in the previous year. The steam cotton presses and the ginning factories are the most important industries in the province; and of these there were 99 at work during the year; the number of these presses and ginning factories increased from 86 to 99 during the year. The oil presses at Amraoti and Sheogaon produced considerably less oil and oil-cake than in the previous year. The domestic industries of Berar are the weaving of silk, cotton pieces with embroidered borders, cotton carpets, coarse cotton cloth and garment pieces, turbans and blankets; there was no marked change in the working of these crafts.

FACTORY ACT.

FACTORY ACT.

The new Indian Factory Act came into force on the 1st January 1892. The changes introduced into the law were, briefly,—

The law could be applied to establishments employing 20 hands or over, instead of only to those with 50 hands or over;

The minimum age for child labourers was raised from seven to nine years, and the maximum age from 12 to 14 years;

The maximum hours for child labour in any one day were reduced from nine hours to seven hours;

The hours of labour for women workers, which were unrestricted under the Indian Factory Act of 1881, were limited by the Act of 1891 to 11 hours a day;

Hours of rest during labour were prescribed for all labourers, namely, half an hour in the middle of the day for all hands; and one hour interval for women workers.

The reports of factory inspectors show the number of factories inspected, and the results of the inspections, to have been as follows:—

STATISTICS OF FACTORIES IN INDIA, INSPECTED UNDER THE FACTORY ACT DURING THE YEAR 1893.

PROVINCE.	Number of Factories liable to be inspected.	Number of Inspections in the Year.	Average Number of Hands employed daily.				Number of Factories.				Number of Persons convicted of breach of Act.	Number of Accidents Reported.			
			Men.	Women.	Children.	Total.	With Sunday Holiday.	With other Weekly Holiday.	Exempted from Sunday Stoppage.	Worked otherwise.		Fatal.	Serious.	Minor.	Total.
Bengal - - -	158	599	112,469	17,607	9,897	139,973	100	1	57	–	11	187	233	431	None.
North-West Provinces and Oudh.	46	162	18,284	678	1,103	20,065	30	5	4	7	4	22	58	84	None.
Punjab - - -	34	52	5,660	435	229	6,324	21	9	3	1	2	20	37	59	None.
Burma - - -	111	495	16,739	432	117	17,288	101	2	3	–	6	17	17	40	None.
Central Provinces -	22	61	6,077	1,394	884	8,355	14	8	–	–	1	31	36	68	1
Madras - - -	67	198	23,589	3,285	1,593	28,467	63	2	–	1	3	20	126	149	None.
Bombay - - -	267	1,039	94,853	25,539	5,753	126,145	211	54	1	1	5	33	639	677	2
Assam - - -	9	6	930	247	105	1,282	9	–	–	–	–	–	–	–	None.
Ajmere - - -	1	–	407	31	101	539	1	–	–	–	–	–	–	–	–
TOTAL, 1893 - -	715	2,522	279,008	49,648	19,576	346,617	540	81	68	10	32	330	1,146	1,508	3
TOTAL, 1892 - -	653	2,063	254,336	43,592	18,887	316,815	493	86	60	13	31	318	1,020	1,369	6

FACTORY ACT.

The largest number of factories is in the Bombay Presidency, and 119 are in Bombay city alone. It is said that in Bombay the new Factory Act has been generally carried out with readiness. Sometimes there may be a suspicion that women do not get the full mid-day interval; and there is difficulty about verifying the ages of children. The two prosecutions of the year were for employing a child beyond the statutory time, and for keeping a latrine dirty after full warning had been given. A good deal will have to be done before the ventilation of some of the mills is satisfactory; and other sanitary improvements will have to be gradually carried out. It is reported from Bombay that the weekly holiday is generally observed, that in nearly all cases the buildings are clean and well kept; that the hands are constantly changing; that their general health continues satisfactory, and there are no signs that mill-work has any ill-effect on the hands.

From Bengal it is reported that the law is generally obeyed; that suggestions by inspectors receive immediate attention; that the sanitary condition of factories is, on the whole, satisfactory; that there was no overcrowding; that the water supply is ample, and that latrine accommodation is being gradually provided; that women and children are not employed beyond the lawful hours; that the general health of the operatives is good, and that the wages paid to mill-hands compare favourably with the earnings of labourers and petty cultivators around. A Bengali officer in high position reports that factory work is popular, as it is continuous, as "regular wages are paid weekly, as the work, "though monotonous, is not arduous, as sufficient rest is given, and as the "work of any particular branch is soon learnt."

From Madras it is reported that the general health of the operatives has been found to be good; that the law is strictly observed as to the hours of labour for women and children; that factory wages are somewhat higher than wages current outside; that the sanitary inspections were not everywhere satisfactorily done; that machinery is everywhere properly fenced, and that the work of factory inspection is being better done, as the requirements are more fully understood.

From the North Western Provinces reports of factory working, of the health and physique of the hands, of sanitation and ventilation in factories, and regarding observance of the Act are satisfactory, save that, in Cawnpore factories, children sometimes manage to work beyond the prescribed time.

From the Punjab, Burma, and the Central Provinces, factory reports were also satisfactory, save that at some factories in the Punjab better sanitation and more complete fencing of machinery was required, and one factory in the Central Provinces was threatened with prosecution on account of the bad state of its latrines.

CHAPTER XV.

FRONTIER RELATIONS, NATIVE STATES, ARMY AND MILITARY OPERATIONS.

FRONTIER STATES AND FRONTIER RELATIONS.

Afghanistan.

THE year 1893-94 was one of importance in its effect on the relations between the British Government and the Amir of Afghanistan. A mission under Sir Mortimer Durand, the secretary to the Government of India in the foreign department, left Peshawur for Kabul at the beginning of October 1893, and was received by the Amir and His Highness's officials with unbounded hospitality and the most friendly courtesy. The various frontier questions were fully discussed, and a settlement which may be considered satisfactory to both sides was arrived at. By this settlement the respective spheres of influence of the Amir and the Government of India were defined. The Amir agreed to retire from Chageh in Baluchistan, and withdrew his objections to the extension of the railway to New Chaman, west of the Kwaja Amran range, and to the establishment of a British cantonment at that place; the Bajauris, Afridis, and Waziris were left outside the limits of his influence, but Asmar and the Kunar Valley above it as far as Chanak, and the tract of Birmal, bordering on the Waziri country, were included within his territory. It was arranged that the frontier, as agreed to, should be demarcated by joint commissioners. The work of demarcation has accordingly since been undertaken, and is approaching completion at the time of compiling the present Report.

As a part of the agreement, the Amir's annual subsidy was increased from 12 to 18 lakhs of rupees, some assistance in arms and ammunition was promised to him, and permission was given to him to purchase and import arms and ammunition. The grant to His Highness in April 1894 of the dignity of an Honorary Knight Grand Cross of the Order of the Bath was a mark of Her Majesty's pleasure at the conclusion of this frontier settlement; and since then Her Majesty has given, and His Highness has accepted, on his own or on his son's behalf, an invitation to visit England.

In regard to the limits of Afghan territory towards the north-east, negotiations were in progress with the Russian Government during the whole of the year under review.

Baluchistan.

In November 1893, Mir Mahmud Khan was installed as Khan of Kalat in succession to his father, whose abdication of the chiefship had been accepted by the Government of India for reasons indicated in the preceding number of this statement (pp. 156-7). Some disturbances took place in the Jhallawan country, but peace was easily restored, the leader of the disturbances, Sardar Gauhar Khan, being displaced from his rank, and succeeded by his son Yusaf Khan. Early in the year, the British troops and civil establishment in Mekran were withdrawn; but some months later, it was found necessary to send thither a political officer with a considerable escort, as raids had been made by the Kinds into Persian territory, and a question had arisen as to the treatment of such of their slaves as escaped to Gwadur. This question was satisfactorily dealt with. The quarrel between the Khan of Kharan and Mir Khia Reki of Mashkel was also satisfactorily settled. The control of the Las Bela State was re-transferred to the political agent for Southern Baluchistan.

The revenue report of the Baluchistan agency shows the following results for the year 1893-94:—

RECEIPTS.		EXPENDITURE.	
	Rx.		Rx.
Opening Balance - - - - -	8,676	Expenditure in Civil Department -	142,398
Receipts - - - - - - -	63,472	Expenditure in Public Works Department - - - -	4,737
Government Allotment - - -	86,560	Repayment of Government Loan -	2,500
Receipts in Public Works Department - - - - - - -	378	Closing Balance - - - -	9,451
Rx.	159,086	Rx.	159,086

FRONTIER STATES AND FRONTIER RELATIONS.

Baluchistan.

The receipts show an increase of Rx. 4,400 over those of the previous year. The harvest of 1893–94 was good, except in the Kalat lands, where large remissions of revenue had to be granted in consequence of damage done by locusts, and of failure of canal water.

The revenue settlement of the Quetta district was completed during the year. Education continued to make rapid progress. Trade showed an increase of Rx. 45,000 under the head of imports, and a decrease of Rx. 38,000 under exports.

The Waziris continued to give trouble, but the conduct of other tribes controlled by the agency was generally satisfactory. An important event was the unconditional surrender of a notorious outlaw, Bangal Khan.

Punjab Frontier.

The only tribe which gave serious trouble on the Punjab frontier was the Mahsud Waziris, and in particular the Abdur Rahman Khel section of this tribe. The most serious offence committed by them during 1893–94, was the murder of a European subordinate officer of the Public Works Department. Since the close of the year under review, the misbehaviour of this tribe has necessitated an expedition and the temporary occupation of their country. With the exception of the Mahsud Waziris, the tribes on the Punjab border gave exceptionally little trouble or anxiety. In Kurrum, which was occupied under an arrangement with the Amir in the previous years, affairs settled down in a most satisfactory manner. The Kurrum Militia improved in efficiency, and a summary settlement for the assessment of land revenue was completed during the year. The position on the Samana Range was undisturbed, and on the Black Mountain the tribes were completely quiet, though beyond the Indus there was some severe intertribal fighting among the Isazai clans. The Khagan route through Hazara and viâ the Babuzar Pass was used successfully for sending up supplies to Chilas, where the fort continued to be occupied by a force consisting partly of British, partly of Kashmir troops; and no attempt was made by the Kohistanis to disturb the garrison. The trade by the Khaibar route is declining. In 1893–94 the income from the tolls was Rs. 53,000, as compared with an average of Rs. 65,000 in the five previous years. In consequence of the heavy duties in Afghanistan, traders prefer other routes, through the Persian Gulf, and even through the Black Sea, for the transmission of their goods destined for Bokhara and Central Asia. At the close of the year under review preparations were being pushed forward on the Punjab frontier for the demarcation of the Afghan boundary in accordance with the terms of Sir Mortimer Durand's agreement with the Amir, and since the close of the year the work has been steadily progressing.

Kashmir and its Tributaries.

The affairs of Chitral were referred to in the Decennial Statement of the Moral and Material Progress and Condition of India for the years 1882–92 (pp. 20, 21). Since the middle of 1892 the history of this dependency of Kashmir has been eventful. The aged Mehtar Aman-ul-Mulk died at the end of August 1892. His second son, Afzul-ul-Mulk, immediately seized on the supreme authority, the elder brother Nizam-ul-Mulk withdrawing to seek British protection at Gilgit. Scarcely had Afzul-ul-Mulk's position been formally recognised by the Government of India when he was attacked by his uncle Sher Afzul, a Chitrali refugee, who made a descent on Chitral from Afghan territory. In this attack Afzul-ul-Mulk was killed. Sher Afzul had apparently established himself firmly in power at Chitral when the rumour of an advance of his nephew Nizam-ul-Mulk with a large British force from Gilgit threw him into a panic, and he hurriedly fled into Afghan territory, where he was placed under surveillance by the Amir. The field was thus left open to Nizam-ul-Mulk, who peacefully established himself as Mehtar of Chitral. With a view to maintaining the Chitral State under the suzerainty of Kashmir and under British influence, the Government of India decided to recognise Nizam-ul-Mulk as the *de facto* ruler, and to continue to pay to him the subsidy which had been granted to his father. The exclusion of Afghan influence from Chitral was agreed to by the Amir in the agreement arrived at during Sir Mortimer Durand's mission to Kabul, and the establishment of such British control as seemed necessary was secured by the location of a British officer with an escort within a reasonable distance of Chitral Fort. During the year 1893–94, Nizam-ul-Mulk continued to strengthen his position, but since the close

Kashmir and its Tributaries.

close of the year, he, like so many of his predecessors in this State, has met with a treacherous death at the hands of a younger brother, Amir-ul-Mulk, and the territory of the State has been violated by an attack upon Drosh by Umra Khan of Jandol, whose ambition and energy have for many years been a principal cause of disquiet in Kafiristan. Sher Afzul has also reappeared upon the scene from Afghanistan.

The position of Gilgit continued, throughout 1893–94, to be strongly occupied by troops, partly of British and partly of Kashmir regiments. The total strength under the Gilgit command is 3,000 men. By the opening of the Khagan route and by the improvement of the Gilgit road much was done during the year under review to overcome the difficulties of providing this garrison with the necessary supplies. Affairs at Chilas and in Chitral have already been related. On the east the occupation of Hunza and Nagar continued and caused no trouble.

During 1893–94 the State of Kashmir was administered by a Council consisting of the Maharaja as President, and his brother Raja Amar Singh, Vice President, and four members, of whom one was the Maharaja's other brother, Raja Ram Singh, who is the Commander-in-Chief of the Kashmir troops. The working of the Council was not so harmonious as in the previous year; the general administration of the State, however, was satisfactorily conducted. Very great improvement has been effected in the revenue department. The entire revenue system has been remodelled; the system of forced labour (*kar begar*) has been improved, if not entirely abolished, and the new land revenue settlement is approaching completion. An impulse has in consequence been given to agricultural pursuits, cultivation has increased and local industries in silk culture, vineyards, wine factories, hop gardens, and orchards are being developed. A systematic management of the State forests is being introduced. The Medical Department is well conducted, and the relief afforded by the State hospitals and dispensaries is yearly increasing. The posts and telegraphs in Kashmir have been taken over by the Government of India, with the result of an increase in efficiency and of a saving in expense to the Kashmir State. The Kashmir troops have improved and have shown their value in active service. Large expenditure has been incurred on public works, particularly on the improvement of the Jhelum and Gilgit roads, and on the construction in the capital Srinagar of water works which are approaching completion.

Nepal.

The relations of the Indian Government with Nepal continued to be friendly. The Commander-in-Chief in India was invited to hunt in Nepal territory, and was hospitably received. The recruits required for the Gurkha regiments and battalions serving under the Government of India were procured in sufficient numbers. The capital of the State is being supplied with a drainage and conservancy scheme, and works are being undertaken to bring water to the town of Bhatgaon. The communications with India are also being improved by the construction of an iron suspension bridge over the Panaoni river. In consequence of a fight with smugglers on the Tibetan frontier, the relations between Nepal and Tibet were strained during the year 1893–94.

Sikkim and Tibet.

The questions as to trade, communication, and pasturage reserved under the Sikkim-Tibet Convention of 1890 for future settlement, were finally settled by an arrangement signed by the British and Chinese Joint Commissioners on the 5th of December 1893. Under this arrangement a trade mart open to British subjects was established at Yatung in Tibet from the 1st of May 1894, and it was agreed that goods of most descriptions were to be allowed to enter Tibet free of duty for five years. Since the close of the year under review, the work of demarcating on the spot the frontier between Sikkim and Tibet has been undertaken.

During 1893–94 the State of Sikkim was administered by a council presided over by a British Political Officer, the Raja remaining under surveillance in the Darjeeling District. The revenue of the State increased from Rx. 5,700 to Rx. 7,600, and the management of affairs was otherwise satisfactory.

Bhutan.

During the year 1893–94 there was no incident to disturb the usual friendly relations with Bhutan.

FRONTIER STATES AND FRONTIER RELATIONS.

The Assam Frontier and Manipur.

The behaviour of the Bhutias on the Assam frontier was satisfactory, nor was any trouble caused by the tribes of Akas, Daflas, Miris, Kamtis, and Singpos. The case was different with the Abors, whose increasing insolence culminated in attacks on military police patrols near Sadiya in November and December 1893. A punitive expedition was considered necessary, and a force consisting of 400 hundred military police with 100 men of the 44th Ghurka Rifles and two mountain guns advanced against the offending villages in January 1894. The villages of Bomjur, Dambuk, and Silluk were taken; but the attempt to reach the more distant village of Damroh failed, owing to a disaster to a small party left with supplies at Bordak, which, being insufficiently guarded, was unexpectedly attacked by villagers who were thought to be friendly. But for this disaster the expedition was successfully conducted.

The boundary between the South of Manipur and the Chin Hills, was established during the year. Except for one raid, the peace of the State was undisturbed. The administrative arrangements were unaltered. The revenue of the State amounted to Rx. 30,800, including a large proportion of arrears collected, and the expenditure to Rx. 31,000, of which a large amount was for indemnity and tribute. Good progress was made with the Manipur-Nichuguard cart-road, on which 400 to 500 Nagas were employed daily.

Lushai Hills (Assam and Bengal)

In the Lushai Hills, the state of peace, which had been established in consequence of the expeditions of previous years, was preserved during 1893–94; fines of money and guns were collected, progress was made in useful public works, such as roads and buildings, and in the Southern Hills a large reduction in the force of military police, and consequently of the cost of administration was found possible. The proposal to transfer the Southern Lushai Hills to the Assam administration is still held in suspense.

Chin Hills (Burma).

In the settlement of the Chin Hills no less satisfactory progress was made. The Siyin and Nwengal rebellion which broke out in the previous year was quelled, the rebel leaders were captured and the tribes disarmed. The only other expedition during the year was a small one to punish the Kaswa-Aswa tribe in the Upper Chindwin District; it was successfully conducted. The attitude of the powerful Tashon tribe was satisfactory, nor was there any trouble of consequence in dealing with the other tribes. Tribute was collected without difficulty, and disputes between villages were settled by the arbitrament of the British political officers. Since the close of the year steps have been taken to substitute military police for troops in the Northern Chin Hills. The hills bordering on the Pakokhu district and those of Arakan were free from disturbance.

Kachin Hills (Burma).

The policy to be pursued in the Kachin Hills was definitely determined in 1893–94. It was decided to accept administrative responsibility on the left bank of the Irrawaddy for the country south of the Nmaika, and on the right bank for the country south of a line drawn from the confluence of the Malika and Nmaika through the northern limit of the Laban district, and including the Jade mines. It has been made known to the tribes who live on the north of this line, that so long as they abstain from raiding to the south of it they will not be interfered with. South of the line the authority of the British Government will be enforced, and the tribes will be compelled to keep the peace, and to pay a nominal tribute. Interference with their internal affairs will, however, be avoided as much as possible. Since the close of the year the principles on which the administration of the Kachin Hills is to be conducted have been formulated in a regulation which has received the Viceroy's assent. The posts established at Sâdon and Sima were maintained during the year, and a new post was established at Kwitu for the protection of the plain country against possible inroads from beyond the Nmaika. The only unfortunate incident in the year's administration was an attack on a British officer and his escort in the neighbourhood of Pansé. The disturbance was purely local and was suitably dealt with. In other parts of the Hills the Civil officers moved about without opposition collecting tribute and settling disputes. The presence of a number of Kachin chiefs at a Durbar held by the Viceroy at Bhamo in December 1893, was an event of some interest and significance. The breaking-up of the dacoit gangs which had long infested the Sinkan Valley was completed during the year.

Frontier States and Frontier Relations.

Burma-China Boundary.

After prolonged negotiations a Convention between Great Britain and China was agreed to, and signed on 1st March 1894, determining the frontier between Burma and Yunnan south of latitude 25° 35′, and prescribing arrangements for the regulation of trade, for consular representation and inter-communication, for extradition, and for the connection of the telegraphic systems of the two provinces. The frontier north of 25° 35′ was reserved for future settlement when the features and condition of the country should be more accurately known. South of this latitude China received certain territorial concessions in Northern Thienni (Hsinwi), and the small State of Kokang; it abandoned its claims to certain tracts further north, while the British Government, at the same time, agreed to renounce in favour of China all its suzerain rights in and over the States of Meunglem and Kiang Hung formerly possessed by the Kings of Ava concurrently with the Emperors of China, with the sole proviso that these States should not be ceded to any other nation without the previous consent of the British Government. The work of demarcating the frontier agreed to in this Convention is to be undertaken at an early date.

Shan States and Karenni.

In the preceding number of this Statement, (p. 159) reference was made to the conflict between Kachins and Shans which took place in North-Hsinwi (Thienni) in 1892–93. There were further disturbances in the year 1893-94. The Shan village of Namhai was raided by Kachins; against whom a punitive expedition had accordingly to be sent. Special measures were at the same time undertaken in the hope that a more permanent peaceful settlement might be brought about. In Mongmit, where the Palaungs have been much oppressed by their more active Kachin neighbours, a plan for the separation of the two races was initiated. During the minority of the Sawbwa, this State is being administered as a sub-division of the Ruby Mines District. Except in the matter of finances, a fairly satisfactory report is given of the State of Hsipaw (Theebaw), the Sawbwa of which paid a visit to Europe in the beginning of 1893. It was, however, found necessary to disarm the State of Mönglong, which is subordinate to Hsipaw, and to coerce the Chief of the adjoining State of Tawngpeng, in order to check the proceedings of outlaws in the border districts. The rates of tribute were assessed for all the Northern Shan States, except North Hsinwi, the assessment amounting to Rx. 5,850.

The Southern Shan States and Karenni were free from disturbance in 1893-94. Part of the boundary between Kengtung (Kiàngton) and Kengcheng (Kiang Cheng) was demarcated during the year, and an Assistant Political Officer was established at Kengtung. The country lying between Toungoo, Karenni, and the Shan States was visited, and proposals made for keeping open the trade routes and preventing raids. The rates of tribute were also assessed in the Southern Shan States, the assessment amounting to Rx. 20,510. Almost the whole of this amount was collected within the year. The trade between the Southern Shan States and the adjacent districts of Burma increased in activity. The volume of traffic is said to have quadrupled since the cart road between the Meiktila Road railway station and Fort Stedman was opened.

France and Siam.

During the year under review a dispute, involving to some extent the interests of India, broke out between France and Siam. In the end a Treaty was ratified by which, among other concessions, Siam renounced all claim to the whole of the territories on the left bank of the Mekong, and to the islands in the river. As the occupation by France of the whole of the territory thus renounced by Siam would bring the French possessions into contact with the British possessions in the Indo-Chinese peninsula, negotiations were entered into between the French and English Governments for the establishment of a neutral zone between their respective territories. As it was found impossible to arrive at an agreement in regard to the limits of this zone without the possession of more positive data, it was determined to lay down the principles on which an enquiry on the spot should be undertaken by technical agents of the two countries. Protocols to this effect were signed in November 1893. In these Protocols it is proposed that the neutral zone should be about 50 miles in breadth. The Anglo-French Commission undertaking the enquiry commenced operations in January 1895.

INTERNAL STATES.

INTERNAL STATES.

Imperial Service Troops.

The total strength of the Imperial Service Troops, which are maintained by the Native States of India for the purposes of Imperial defence, was on the 1st July 1894: Cavalry, 7,619; Infantry, 8,734; Artillery, 293; Sappers and Miners, 159; Camel Corps, 500; and Transport Corps, 950, making a total of 18,255 men, out of an authorised strength of 19,324 men. The progress made in the year and the state of efficiency arrived at were considered highly satisfactory. There are still some defects in drill and fire discipline, and in a few other points, which have been pointed out by the inspecting officers, and which require to be remedied. Discipline, however, is throughout exceptionally good, and there has been scarcely any crime among the regiments, none during the period of their instruction in British territory. By bearing the cost of the maintenance of these troops the Native States make a very considerable contribution towards the defence of the Empire.

Dacoity.

The suppression of dacoity in the Native States is a matter of Imperial concern, and often necessitates interference on the part of the paramount power, particularly in those tracts of Native States' territory where the jurisdiction of the chiefs is much intermingled, and where the dacoits have, therefore, great advantages in organising their crimes with comparative impunity. For the State of Hyderabad and the large Agencies of Central India and Rajputana there has long existed a special department under the Government of India charged with the duty of suppressing thuggee and dacoity.

In 1892-93 special operations were undertaken for the suppression of dacoity, which for two or three years past had prevailed in Bundelkhand in Central India. These operations, which were continued in 1893-94 and in 1894-95, and in which the Darbars of the Native States concerned co-operated cordially and effectively, were eminently successful. All the principal leaders were hunted down, killed or executed; 140 dacoits were arrested; those who had been known to harbour dacoits, and those who had received stolen goods and supplied arms and ammunition, were punished. The dacoits, in consequence, found it difficult to hold together, and broke up into small gangs. The total number of dacoities reported to the Department in the year fell from 564 to 468, the decrease being 45 in Central India, 19 in Rajputana, and 32 in Hyderabad.

In Kathiawar there was a slight recrudescence of dacoity in the year under review, but before the end of the year it was completely stamped out, and gang robbery is now less prevalent in the Bombay States than for some years past.

Hyderabad.

In last year's statement it was reported that Nawab Vikar-ul-Umra had been appointed by His Highness the Nizam as Chief Minister of the Hyderabad State. The Nawab, on whom the title of Madar-al-Moham has since been conferred, conducted the administration during 1893-94. The year was not without agitation in Hyderabad, and various changes in the system, as well as in the *personnel* of the administration, were introduced by the Nizam. The principal features of the changes were the larger employment of natives of Hyderabad in the administration, the retention of a Chief Minister, but with powers defined by rules, the investiture of certain subordinate Ministers, with real power and responsibility in their own departments, the creation of a Cabinet Council for the disposal of important matters in accordance with definite rules, and the appointment of an English Comptroller General of Accounts. The administration was divided into five departments—finance, revenue, military, judicial, and public works, each having its own secretariat, and controlled by one of the Ministers. The Chief Minister has power to overrule the majority of the Council in any urgent matter, and the supreme control of the Nizam himself in all matters is maintained.

The

INTERNAL STATES. Hyderabad Assigned Districts

The following are the principal figures of the finance of the Hyderabad Assigned Districts for the last five years :—

Year.	Gross Land Revenue.	Total Revenue.	Expenditure.				Total Expenditure.	Surplus of Revenue over Expenditure.	Payments to His Highness the Nizam.
			Public Works.	Civil Administration.	Military.	State Railways.			
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
1889–90 - -	673,475	1,022,863	116,584	387,237	361,976	10,593	876,390	146,573	142,494
1890–91 - -	652,474	1,009,595	118,530	394,531	337,606	8,605	859,272	150,323	146,473
1891–92 - -	639,976	1,027,632	110,552	410,757	378,424	9,489	909,202	118,430	130,697
1892–93 - -	625,944	985,448	121,177	416,095	361,597	9,123	907,992	77,456	83,104
1893–94 - -	637,390	1,017,475	109,966	432,531	392,819	8,567	943,883	73,592	65,000

It will be seen that with the increase of expenditure the surplus available for payment of the Nizam has considerably declined during this period.

Mysore.

The year under review was the last complete year of the rule of His Highness Maharaja Sir Chamrajendra Wadiar Bahadûr, G.C.S.I., of Mysore, who died in December 1894. The finances of the State are flourishing, as indicated by the following figures taken from the Dewan's Memorandum of Moral and Material Progress and Condition of the State for the year 1893–94 :—

RECEIPTS.		EXPENDITURE.	
	Rx.		Rx.
Land Revenue - - - - - -	936,130	Interest - - - - - - -	19,617
Mining Leases - - - - - -	70,632	Land Revenue - - - - - -	186,919
Forests - - - - - - - -	146,297	Forests - - - - - - -	44,830
Excise - - - - - - - -	303,728	Excise - - - - - - -	25,002
Assessed Taxes and Sugar - - -	66,899	Administration - - - - -	53,639
Stamps and Registration - - - -	80,331	Palace - - - - - - -	140,000
Interest on Investments - - - -	39,954	Law and Justice - - - - -	85,153
Mysore State Railway Earnings - -	52,066	Police - - - - - - -	73,406
Other Receipts - - - - -	40,100	Education - - - - - -	31,400
		Tribute and Assignments - - -	257,156
		Public Works - - - - - -	249,113
		Military - - - - - - -	91,510
		Railways { Redemption Fund - -	40,000
		Railways { Guaranteed Interest - -	65,305
		Railway Construction and Surveys - -	68,067
		Investments - - - - - -	19,309
		Other Expenditure - - - - -	90,032
TOTAL - - Rx.	1,736,137	TOTAL - - Rx.	1,540,458

The royalty from the gold mines is a source of revenue, which grows as the mining industry is developed. In 1893–94, 207,000 ounces of gold were extracted in the State, as compared with 163,000 ounces in the previous year. The harvest of the year was fairly good, and the general condition of the Province was prosperous; the amount of crime was normal. Some extension of work is reported on the part of the medical and educational institutions of the State. The number of municipalities increased from 101 to 104, and the two largest, Bangalore and Mysore, received the privilege of electing half their Municipal Commissioners. The Representative Assembly held its thirteenth meeting in October 1893, and discussed 479 subjects in the five days during which it sat. The rules for the constitution of this Assembly were re-cast, chiefly by the absorption of the minor municipalities into their respective taluks, and the total strength of the Assembly was reduced from 351 to 275. The members elected for taluks are to retain their seats for three years, but those for municipalities, district fund boards, or associations are to be nominated annually. During the year the Maharaja introduced a scheme for the relief of encumbered estates; the Mysore State grants to the holders of jaghirs which are likely to pass into the hands of money-lenders loans at 5 per cent. interest, not exceeding in amount ten times their annual money assessment, and until the loans are paid off the estates are managed by the State.

Baroda.

The last Administration Report issued by the Baroda Darbar is for the Baroda official year 1st August 1891 to 31st July 1892. The revenue of that

INTERNAL STATES.

year is stated at Rx. 1,743,102, and the expenditure at Rx. 1,766,713, as compared with Rx. 1,774,561 and Rx. 1,766,713 respectively in the previous year. During 1893-94 the year was very unfavourable for those districts of the Baroda State that lie in the Kathiawar Peninsula, but in the rest of the State the rainfall was good. His Highness the Gaekwar spent but a short period of the year in his own territory. To obviate the difficulties arising from his frequent and prolonged absences, it was arranged that while he was away the State should be administered by a council composed of the Dewan, as President, and the heads of the military and revenue departments and the two Naib-Dewans as members. Some important matters were reserved for the Maharaja's decision, but in all administrative details it was arranged that His Highness should not interfere while absent from the State. There was a continuance during the year 1893-94 of the agitation caused by the operations of the alienation department and by the dealings of the Darbar with the various tenure-holders in its jurisdiction. There was also an increase of lawlessness, due to some recent ill-considered reductions and changes of organisation in the police. Steps have, however, been taken to remedy the evil.

Rajputana.

The following is a Table of the Rajputana States, with their revenues, viz. :—

STATE.	Area in Square Miles.	Population in 1891.	Actual or Estimated Revenue.	
			1892–93.	1893–94.
			Rx.	Rx.
Udaipur (Mewar)	12,861	1,862,478	375,000	256,040
Dungarpur	1,440	165,400	14,567	15,000
Banswara, &c.	1,937	212,269	25,988	24,477
Pratapgarh	959	87,975	26,764	43,495
Jaipur	15,349	2,832,276	619,007	681,865
Kishangarh	874	125,516	35,748	39,927
Lawa	19	3,360	450	450
Jodhpur (Marwar)	37,445	2,521,727	415,700	483,744
Jesalmer	16,039	115,701	15,870	19,587
Sirohi	1,966	188,977	17,500	29,880
Bikaner	23,090	831,955	180,000	198,364
Bundi	2,225	295,675	80,000	68,285
Tonk	1,415*	198,934*	120,000	120,000
Shahpura	406	63,646	28,900	31,220
Bharatpur	1,961	640,303	271,350	268,407
Dholpur	1,156	279,890	92,534	119,507
Karauli	1,229	156,587	47,773	55,448
Alwar, &c.	3,051	767,786	265,879	270,084
Kotah	3,803	526,267	240,000	225,717
Jhalawar	3,043	343,601	150,000	117,623
TOTAL	130,268	12,220,343	3,023,030	3,067,020

* Excluding the Tonk pergunnas in Central India.

The Association, called the Walterkrit Rajputra Hit-Karini Sabha, continues its useful work of social reform by preventing marriages between persons of immature age, and by reducing expenditure at marriages and funerals. Fewer breaches of the Sabha's rules were reported than in the previous year.

The year is reported to have been, on the whole, satisfactory for agriculturists in Rajputana.

The most notable incident in the province was the death of H.H. Maharaja Jeswant Singh of Bhartpur, who was succeeded by his eldest son, Ram Singh. A scheme of administration was sanctioned, under which the ruling powers were vested in a State Council, under the presidency of the Maharaja assisted by the political agent. One of the earliest and most needed reforms approved by the Darbar, was the reversal of the orders issued by the late Maharaja, on mistaken

mistaken religious grounds, forbidding the cultivators to touch the wild cattle in the State, however serious their depredations. Permission is now given to capture and domesticate these animals. INTERNAL STATES.

In Bikanir and Alwar the Councils of Regency are reported to be working well. The Council in Jhallawar did not work well. Two of the five Councillors having died, and one having resigned his post, it was decided, after the close of the year under review, to abolish the Council, and to re-invest the Maharaj Rana with full administrative powers, subject to certain conditions. In this State the fall in the price of opium makes a reduction in the assessments of revenue on irrigated land a matter of pressing importance. The administrations of Jeypur and Jodhpur (Marwar) are highly praised. In both States there is great liberality of expenditure on irrigation and public works. The total expenditure incurred on public works in the Rajputana States was about 31½ lakhs in 1893–94. Of this amount 10¾ was incurred by Marwar (Jodhpur), but this sum includes expenditure on the Jodhpur-Bikanir Railway; 7¾ lakhs were spent by Jeypur, 4¾ by Kotah, 3 by Alwar, 1¾ by Bikanir, 1¼ by Meywar, and 1 by Jhallawar, besides smaller amounts by Bundi and Tonk. The tract of Mallani was transferred in 1891 to the control of the Jodhpur Darbar under certain conditions. That its subsequent management has been satisfactory may be inferred from the absence of complaints. The work of supervising the criminal tribes is being successfully carried on in Jodhpur, where it is reported that 90,000 persons belonging to such tribes are living peacefully, settled on land granted for the purpose by the Darbar. In regard to Banswara, it is reported that there is no sign of the improvement which is required in the administration and in the attitude of the chief. In Meywar (Udaipur) reform is required in matters of police and criminal justice, but otherwise the administration is not considered unsatisfactory, notwithstanding unfavourable comments that have been made upon it. Of other States there is nothing special to notice, but their management is generally satisfactory. The Mayo College maintains its high reputation, and the Nobles School at Jodhpur is a flourishing institution. The currencies of several of the Rajputana States were disorganised by the results of the closing of the Indian Mints by the Government of India. Between 26th June 1893 and 31st March 1894 about Rx. 775,000 worth of silver was imported into Rajputana, and about Rx. 540,000 worth was coined at the various local mints. In consequence, the local currencies were, in some instances, much depreciated. In Jeypur the exchange fell from 6 per cent. premium to 2 per cent. discount. The Jhallawar and Kotah rupees, previously at a premium, declined to discounts of 3¾ and 3 per cent. respectively. The Pertabgarh coin depreciated 12 per cent. Before the close of the year measures were taken in all the States affected to check any further depreciation of their currencies. In Jeypur the importation of silver without permission of the Darbar was forbidden. In Jodhpur the charge for seignorage was raised to 2½ per cent., and an import duty of 12 per cent. was placed on silver. In Jhallawar a seignorage of 10 per cent. was imposed. In Kishangarh a fluctuating seignorage, sufficient to check any abnormal or speculative flow of silver to the mint, was decided upon. The other mints in Rajputana have been closed.

The agricultural season in this Agency was, on the whole, favourable. The officials of the principal Central India States, as well as those of several of the Rajputana States, were much occupied during a part of the year under review in preparing and presenting evidence for the Opium Commission Like the Rajputana States, some of the Central India States were also much affected by the fluctuations in the exchange between their own coinage and that of British India, which resulted from the closing of the Indian mints. The Indore and Bhopal mints were closed, and in Indore a duty of 15 per cent. was imposed on imports of silver. It is noticed that the closing of the Bhopal mint did not remedy the depreciation of the Bhopal as compared with the British Indian rupee. The adoption of British Indian currency in Bhopal was under the consideration of Her Highness the Begum. The campaign against dacoity in Bundelkhand has already been referred to. Its effect may be traced in the decline in the number of dacoities reported in Bundelkhand from 59 in 1891–92, to 39 in 1892–93, and to 11 in 1893–94. Central India.

The death of the Maharaja of Panna occurred in November 1893. His Highness had ruled for 23 years, and had received as marks of the approval of

INTERNAL STATES.

the Government of India, the decoration of a K.C.S.I., and the privilege of a personal salute of 13 guns. The Maharaja of Orccha was invested with the K.C.I.E. during the year in recognition of his good government. The Nawab of the small state of Baoni and his son died at Mecca, whither they had gone on pilgrimage.

The State of Gwalior continued to be administered throughout 1893–94 by the Council of Regency. The balance at the credit of the State is very large, viz: 4½ crores in cash, and 5 crores invested in Government securities. The income of the year amounted to Rx. 1,411,300, and the expenditure to Rx. 1,147,600. Progress was made in the construction of the Goona-Bina and Ujjain-Bhopal railways. The former is approaching completion; a share in the cost of the latter is borne by Bhopal. Apart from the railways, about 13 lakhs were spent on public works from Gwalior revenues. The policy of constructing feeder roads is being pushed on. Settlement operations are proceeding successfully and rapidly.

A report on the administration of Indore has been issued by the Minister, which indicates a satisfactory and fairly prosperous condition of the people. In giving evidence before the Opium Commission, the Minister estimated that the Indore State revenues would suffer a loss of of 21 lakhs a year if poppy cultivation was prohibited, and that a yet larger loss would fall on individuals in the State. The revenues collected in 1893–94, including arrears, amounted to Rx. 693,350, and the payments to Rx. 646,200. The work of investigating the old documents of the State is progressing. The arrears shown by the accounts to be due to the State are very large, amounting to 5 or 6 crores. It is recognised that the greater portion of this will have to be written off as irrecoverable. An important event in the State during the year under review was the opening of the new buidings of the Tukoji Rao Holkar College at Indore. This college showed a very successful record in 1893–94.

In Bhopal the attention given by Her Highness the Begum to the work of suppressing dacoity, and the interest she displayed in the medical department of the State, were conspicuous. Other States in Central India are generally reported on favourably, excepting the petty States of Khaniadhana, Rajgarh, and Nagode. In the Orccha State there was a conflict between the Darbar troops and certain discontented Thakurs. On inquiry it appeared that the demands of the Thakurs were unreasonable. The Rewah State continued to be satisfactorily managed, and the balance in hand was still further increased by the end of the year to 18⅓ lakhs, or more than a year's revenue. The two States of Dewas are administered, both satisfactorily, under the superintendence of the First Assistant to the Government General's Agent.

Punjab.

Little is contained in the annual report upon the principal Native States in the Punjab; it is, however, indicated that affairs in Patiala and in Bahawalpur are anything but satisfactory. The case is otherwise with Nabbha, the Chief of which received during the year the title of Raja-i-Rájagán in recognition of the excellence of his rule. There was a slight disturbance in the State of Mandi, which required the intervention of the British Commissioner. A change of wazir was found to be necessary. The administrations of Jind, of Kapurthalla, of Nahan, and of Chamba are described as satisfactory.

North-Western Provinces.

The finances of the Tehri or Garwhal State are represented by an income of Rx. 24,689, an expenditure of Rx. 17,188, and a closing balance of Rx. 71,876. A more liberal expenditure on Public Works is desirable. The young Raja bears a good character with the Lieutenant Governor. Disturbances took place in the State in August 1893, to quell which an application was made to the British Government for assistance. The matter does not seem to have had much importance or to have been due to oppression. The administration is generally satisfactory.

The State of Rampur continued to be administered by a Council of Regency, presided over by a British officer. The Nawab is a minor. The financial position of the State is strong. The ordinary income of the year exceeded 31½ lakhs, and the expenditure 27½. The State balance was reduced by the sale of promissory notes to pay the instalments required for the construction of the Rampur-Moradabad Railway; but at the close of the year the balance in hand

hand stood at very nearly 2 crores, of which 194¼ lakhs were invested. The railway was approaching completion at the end of the year. Education makes great progress. INTERNAL STATES.

In Hill Tipperah the system of government described in last year's Statement as having been established by the Maharaja, worked smoothly and efficiently. More money was spent on Public Works, less on general administration and the Raja's household. A considerable sum was also required for the relief of famine. The State debt was reduced from over 4½ to less than 3½ lakhs of rupees. It is particularly noticed that the Maharaja co-operated with the Bengal Government in the matter of survey and settlement in the zemindari which he holds in British territory. Bengal.

The administration of the Kuch Behar State gives satisfaction in most departments; but in the essential matter of finance improvement is urgently required. With a lakh a year to be provided for repayment of the railway loan the revenue can be made to cover the annual expenditure only if strict economy is practised by the Maharaja and his officials. The State Railway connecting Kuch Behar with the Eastern Bengal Railway system was opened during the year. During its first few months it cannot be said to have added to the State revenues. It will, however, be useful to the people.

The doubts as to the status of the Orissa Tributary Mahals have been set at rest by the decision to recognise them as Native States. During the year Act xi. of 1893 was passed repealing certain enactments which have been rendered obsolete by this decision, and validating past acts of Government officials in respect of these Mahals. Fresh sanads were also prepared defining the powers of the Chiefs and their relations to the British Government, and were issued after the close of the year. The condition of several of the Mahals causes anxiety. In the State of Keonjhar peace and order were gradually restored, the insurgent Bhuyans tendering submission to their Chief. An agreement was arrived at for the settlement of the land revenue, and leases were accordingly granted. The Raja's claim to personal services (such as porterage, roof-thatching, and dragging the car of the family god), out of which the rebellion had mainly sprung, was settled in a manner which, it is hoped, will be satisfactory and lasting. The nature and extent of the services to be claimed have been defined with precision, or else commuted into an enhancement of the ordinary rent. In Nyagarh there was a rising of the Khonds, and some of the State officials were murdered. Vigorous action was taken, and for the time the disturbances were quelled, but they broke out again before the close of the year. The affairs of Daspalla were also very unsatisfactory in consequence of the faulty administration of the Chief. In 1894-95 it has been found necessary to temporarily suspend his powers, and to carry out a revenue settlement under the direct management of the British Government. The State of Ranpur also suffered from the Chief's misgovernment.

The Tributary and Political States of Chota Nagpur stand in much the same relation to the British Government as the Orissa Mahals. Their affairs were, however, more satisfactory, the Chiefs conducting the administration generally with greater loyalty to Government and with greater regard to the interests of their subjects.

Of the eight Feudatory States which were under the direct control of the Central Provinces, Administration at the beginning of 1893-94, Makrai was restored to the Raja, who was re-installed in November 1893, and Patna, Kalahandi, and Raigarh were made over to their respective Chiefs, who attained their majority shortly after the close of the year under review. Bamra and Raigarh are the only two States under the Central Provinces' Administration in which Government does not interfere, at least to the extent of requiring the administration to be conducted through a Dewan approved by itself. Bamra, the Raja of which has recently received a further mark of the approval of Government, has enjoyed exceptional immunity from interference by the paramount Power, and is well-managed according to native methods. In all the other States there has perhaps been too strong a tendency to imitate the British system of administration, even in details. The complaints alluded to in last year's Statement as to the alleged severity of the assessment, forest rules, &c., in the Bamra State have been Central Provinces.

INTERNAL STATES.

been found to be without foundation. Throughout these Feudatory States the year was, on the whole, a prosperous and healthy one. With the entry of the railway trade has been rapidly expanding, and cultivation is extending. There is a keen demand for land in proximity to the line. Settlement work, generally under Government supervision, is in progress in all the States except Kalahandi and Rehrakhol. The finances of the States are mostly improving; but at the same time there is a need for larger and more highly-paid administrative establishments. There is increased litigation; but justice, criminal and civil, is said to be satisfactorily administered. Police work requires a good deal of improvement. In education there is marked progress.

Madras.

In Travancore the year was one of continued progress and prosperity. The Legislative Council had 10 Bills under its consideration during the year, five of which were passed. These dealt respectively with the recovery of arrears of public revenue, with forest management, with the valuation of suits, with the recovery of arrears due to certain estates, and with the law of limitation. The revenue of the year amounted to Rx. 841,900, or Rx. 700 more than in the previous year; land revenue and salt each contributed Rx. 156,700, and tobacco Rx. 99,700. The total charges on the year's revenue amounted to Rx. 797,100, and the State balance was increased by Rx. 45,900 to Rx. 807,700. The expenditure on Public Works exceeded 15 lakhs. Education statistics show the satisfactory totals of 2,489 institutions and 113,972 pupils; the proportion of the latter to the population of school-going age exceeds 29 per cent. in the case of boys and 8 per cent. in the case of girls. Trade continued to improve, more than 2 crores of goods being imported or exported. The figures for registration and the administration of justice are satisfactory.

In Cochin the revenue of Rx. 184,100 fell short of the charges by Rx. 2,700, an increase of expenditure having been caused by the Raja's trip to Northern India. There is, however, a large balance in hand. There is said to be room for improvement in the administration of justice by the Civil Courts of the State. The benefits of education and medical relief are being more widely extended, and the statistics of both these departments are encouraging. The season was favourable in Cochin as in all the Madras States. There is nothing special to report of the other States, except perhaps that the expenditure, Rx. 83,500, of the Pudukota State exceeded the revenue by about Rx. 5,000.

Bombay.

The principal features of the year's administration of the Native States subordinate to the Bombay Government were a general decrease of crime in its more serious form, the continued expansion of trade, and the progress made in assimilating the methods of government in these States to the methods prevailing in British India. The Chief of Khairpur, who alone stood wholly outside this stream of progress, died shortly after the close of the year under review, and with the succession of his son the State may be expected to participate in the general progress. During the year His Highness Shaku Chhatrapati, Maharaja of Kolhapur, was installed as ruler of that State on attaining his majority, and full powers of administration were restored to the Nawab of Cambay, who had been deprived of them in 1890 in consequence of disorder in his State. In consequence of fraudulent alterations of certain documents produced in a survey inquiry in which the State was concerned, the Maharana of Danta was reduced from the second to the third class of Chiefs in the Mahikantha Agency. In Kathiawar there was a slight recrudescence of Miana dacoity, but before the close of the year it was completely stamped out. More serious, in some respects, was the outbreak at Prabhas Patan in Junagadh, during the Muhammadan festival of the Muharam (25 July 1893) of a religious riot between Hindus and Muhammadans, which resulted in several deaths. The riot being suppressed, a Special Commission, consisting of a Hindu, a Muhammadan, and a Parsi, was appointed for the trial of the offenders, of whom 18 were convicted and sentenced to imprisonment. The agricultural season was unfavourable in Kathiawar, the Mahikantha Agency, and Savantvadi, but in most of the other States, or groups of States, the crops were moderately good. The Cutch and Kathiawar ports showed a considerable development of trade, and the railways of Kathiawar and Kolhapur earned a higher profit than in the previous year.

Satisfactory progress in educational matters was reported in regard to all the important groups of States, the Kharipur State only excepted. A favourable report was given of the working of the Rajkumar College at Rajkote. The total

gross

gross revenue of the Bombay States in 1893-94 is given at Rx. 3,635,000. The financial condition of the more important States may be judged from the following table, in which there are many blanks owing to want of information :— INTERNAL STATES.

State.	Revenue in 1893-94.	Expenditure in 1893-94.	Expenditure on Public Works.
	Rx.	Rx.	Rx.
Cutch	189,367	144,054	14,725
Palanpur	71,514	71,693	—
Radhanpur	69,075	75,847	5,256
Idar	65,283	60,319	—
Junagad	245,000	—	25,082
Navanagar	269,325	—	18,184
Bhavnagar	340,000	—	88,943 (including railway.)
Porbandar	55,000	45,000	8,030
Dhrangadhra	65,000	—	10,654
Morvi	100,847	—	34,818
Gondal	179,863	127,994	48,960 (including railways.)
Cambay	83,494	74,766	9,339
Rajpipla	86,353	84,753	—
Janjira	50,357	47,763	6,360
Savantvadi	41,945	41,354	9,224
Kolhapur	339,008	337,944	52,896
Sangli	111,645	106,820	15,868
Khairpur	106,828	73,310	—

The disputes between Cutch and Morvi still continue. Of the States under administration, Rajpipla is shown to have benefited most conspicuously, owing to British management. Porbandar has been less fortunate, but, with a change of Administrator, more rapid progress has been ensured. Cambay had been so thoroughly reorganised that it was found possible during 1893-94 to restore the Nawab to full powers; the survey settlement was introduced during the year, and worked satisfactorily. Savantvadi continued under its Administration, the Chief being unfit for his duties; but as the State has long been under British management no conspicuous reform was observable during the year.

TRANSMARINE DEPENDENCIES AND INTERESTS.

TRANSMARINE DEPENDENCIES AND INTERESTS.

Aden.

The relations of the Aden Residency with the neighbouring Arab tribes were, on the whole, satisfactory. The conduct of the Chief of Balahaf, and dissensions among his tribesmen, caused anxiety. A long-standing feud between the Yafii and the Fadthlis was suspended by a year's truce. The Markashis gave some trouble, but were reduced to submission, and surrendered hostages to the Fadthlis. The survey of the Lower Yafii country was completed. Shehr, Mokalla, and Hadramaut were visited by an exploring party under Mr. Theodore Bent. Crime increased, but was not generally of a serious kind. Civil litigation also increased. Trade fell off to the extent of about 3¼ lakhs from the exceptional high figure, 817½ lakhs, which it reached in 1892-93. The general health of the settlement was bad in 1893-94, due particularly to the increase of malarious fevers and to an epidemic of dengue. Among the garrison, the admissions into hospital numbered 1,408, as compared with 1,103, 1,078, 1,187, 1,735, and 2,200 in the five years from 1888 to 1892 respectively.

Somali Coast.

On the Somali Coast the year was not one of general prosperity. Prolonged drought prevailed in the country behind Berbera and Bulhar, and the consequent misery led to much raiding and looting of caravans. Civil war was carried on during the year between the Ismail Areh and the Ishak Areh, but peace has eventually been concluded. It is noticed that the tribes show an increasing tendency to refer their quarrels and differences to the British officers on the coast, whose work consequently is much increased. There has been an incessant stream of shooting parties into Somaliland; service with these parties is now a recognised and popular profession with the Somal. As the game is

TRANSMARINE DEPENDENCIES AND INTERESTS.

driven further inland, the sportsmen have to penetrate further. In the Berbera and Bulhar Agency the import trade suffered, and crime increased; but at Zaila, which was unaffected by the drought and scarcity, there were increases in both exports and imports. The total value of the Somali Coast trade exceeded 70 lakhs. The expenditure on the Coast, including Military and Public Works charges, amounted to Rx. 22,208. As the receipts were Rx. 23,150, there was a surplus, which has occurred only once before, from the Protectorate of Rx. 942.

Muscat and Persian Gulf.

Various causes contributed to mar the prosperity of 1893–94, and to prevent the anticipated revival of trade on the coast of the Persian Gulf. In Oman, notwithstanding the usual inter-tribal fighting, the year was fairly peaceful and prosperous. On the Persian Gulf the year was marked by troubles between the Turkish authorities and the local Chief of El Bidaa, which, however, were settled amicably by the close of the year; by the fall in the exchange of the local currencies; by devastation due to locusts in the Persian Maritime Provinces, which injured what promised to be a good harvest and led to general scarcity; and by continued disorder in the same Provinces in which the Baharloo tribes were the principal offenders. The trade routes in Persia were also more insecure than usual, and at Shuster there was a fanatical demonstration, at one time threatening serious mischief against the European merchants. There were no captures of slave dhows during the year. The value of Muscat trade increased from 3,387,000 dollars to 3,775,000 dollars; the Persian Gulf trade was valued at about 4½ crores for exports, and 6 crores for imports.

ARMY.

The sanctioned establishment for 1893-94 was as follows:—

British Troops			73,080
Miscellaneous Officers			901
Native Troops	Bengal	84,513	
	Madras	32,305	
	Bombay	28,818	
			145,636
	Total		219,617
	Corresponding Total for 1892-93		218,786

The actual strength of the Army on the 1st April 1894 was as follows:—

BENGAL.			
British.			
Cavalry (6 regiments)	3,792		
Artillery (52 batteries and companies)	7,688		
Engineers	66		
Infantry (33 battalions)	35,164		
		46,710	
Native.			
Cavalry (24 regiments)	14,997		
Artillery (7 batteries)	1,544		
Sappers and Miners (8 companies)	1,285		
Infantry, including Punjab Frontier Force (64 battalions).	57,791		
Other Corps, including Hyderabad Contingent.*	13,765		
		89,382	
			136,092
MADRAS.			
British.			
Cavalry (2 regiments)	1,325		
Artillery (15 batteries and companies)	2,298		
Engineers	76		
Infantry (10 battalions)	10,155		
		13,854	
Native.			
Cavalry (3 regiments)	1,834		
Sappers and Miners	1,408		
Infantry (32 regiments)	26,095		
Other corps	4,535		
		33,872	
			47,726
BOMBAY.			
British.			
Cavalry (1 regiment)	658		
Artillery (21 batteries and companies)	3,271		
Engineers	67		
Infantry (9 battalions)	9,303		
		13,299	
Native.			
Cavalry (7⅛ regiments)	4,403		
Artillery (2 batteries)	427		
Sappers and Miners	802		
Infantry (26 regiments)	21,177		
		26,809	
			40,108
	TOTAL		223,926

The number of Troops in the Burma District on the 1st April 1894 was—

British	3,417
Native	10,061
Total	13,617

* The Hyderabad Contingent is not included in the "Sanctioned Establishment" shewn above.

1893-94.

The total of the Native Army Reserves in India on 1st April 1894 was 13,316.

The net expenditure on the Army in 1893–94 was—

In India	Rx.	15,196,593
In England	£.	4,368,101
Exchange	Rx.	2,838,677
Total	Rx.	22,403,371
Total in 1892–93	Rx.	22,554,791

The number of Volunteers in the whole of India on 1st April 1894 was as under :—

	Enrolled Strength.	Efficient.
Bengal	13,925	12,959
Madras	9,149	7,765
Bombay	5,815	5,184
	28,889	25,908

On the 1st of April 1893 the number of enrolled Volunteers was 27,936, of whom 24,950 were efficient. The number of Volunteers enrolled in the Reserve at the end of 1893-94 was 1,680.

During the year 1893–94 some important measures affecting the administration and organisation of the Army in India were either sanctioned or brought into effect.

Of these the most important change, perhaps the most important which has taken place for the past century, has been the withdrawal of the Madras and Bombay Armies from the control of the local Governments.

In November 1892 Lord Lansdowne's Government renewed the recommendations made on previous occasions by the Government of India that the system of separate Presidential Commands in Madras and Bombay should be abolished, and proposed that the Army in India should be divided into four armies, each under a Lieutenant-General, with a separate command for Burma, the whole to be under the direct command and control of the Commander-in-Chief in India and of the Government of India.

The Divisions of the Army were to be as follows : —

I. The Army of the North, to include the Punjab, the Trans-Indus territory, and Sindh. This would include the Punjab Frontier Force.

II. The Army of the West, to include the territories under the civil Government of Bombay, and such part of Rajputana and Central India as are at present garrisoned by Bombay troops.

III. The Army of the East, to include the civil Governments of the North-Western Provinces and Oudh, Bengal and Assam.

IV. The Army of the South, to include the territories at present garrisoned by the Madras Army.

V. Burma, a separate command under a Major-General, to be under the direct command of the Commander-in-Chief in India.

With

With some modifications these proposals were accepted by Her Majesty's Government, and a Bill, withdrawing the Madras and Bombay Armies from the control of those Governments, was accordingly introduced by Lord Kimberley in the House of Lords, and, after passing through the House of Commons, received the Royal Assent on the 5th December 1893. The Bill abolished the offices of the Commander-in-Chief, Madras and Bombay, who ceased to be members of the local Councils, and transferred to the Governor-General of India in Council the military control and authority hitherto exercised by the Governments of those Presidencies. ARMY

The Secretary of State did not concur in the proposals to detach Burma from the Madras Command to which it had always belonged, and to place the whole of the trans-Indus territory, Baluchistan and Sindh in the Punjab Command. He decided that Burma should, as heretofore, be under the Lieutenant-General commanding in Madras, and that Sindh and Baluchistan should form part of the Bombay Command.

He declined also to sanction the proposed titles for the new commands. It was finally settled in 1894 that the whole of the forces in India should be designated the Army of India, divided into the Bengal, Punjab, Madras, and Bombay Commands, and that the new organisation should be introduced on the 1st April 1895.

In connection with the schemes for the mobilisation of the Army in the event of war, the deficiency of officers for the extra duties required on active service, and to replace casualties, came prominently under the notice of the Government of India. Looking to the necessity for endeavouring to meet the wants of India, as far as practicable, from India itself, it was proposed to create a reserve of officers for commissariat and transport work, &c., composed of gentlemen from civil departments, the police, volunteers, &c., and from private life, who might be willing to enrol their names for this purpose. The orders constituting this Indian Army Reserve of officers were published in March 1894. The following officers and gentlemen may be granted commissions in the Reserve:—Officers who, having retired from Her Majesty's British or Indian military forces, are not liable to recall for further service, Indian Volunteers, Government officials other than military officers, private gentlemen residing in India.

Commissions to these officers will ordinarily be issued only when they are actually called up for service, but they will, if desired, be issued at any time.

Rules have been laid down for their pay, promotion, &c., when on active service, and for pensions to their families.

A Royal Warrant had already been issued in 1892 providing for the recall to active service in time of need of officers entering the Indian Staff Corps after the 9th January 1892, and retiring on pension; and rules for their employment on active service, somewhat similar to the foregoing, were promulgated during the year.

A slight change was made in the establishment of British troops in India. Since 1886 there have been 53 battalions of British Infantry in India, each composed of 28 officers, 48 warrant and non-commissioned officers, and 936 rank and file, total 1,012 of all ranks. In 1893 the War Office represented that the disproportion which existed between the number of battalions at home and abroad, then 65 and 76 respectively, was a source of great inconvenience, administrative and otherwise, and proposed to withdraw three battalions from the colonies and one from India. This was sanctioned on the condition that 20 men should be added to each of the remaining 52 battalions, making a total of 1,040 men. The reduction was effected in the trooping season of 1893-94.

The organisation of the Garrison Artillery in India underwent considerable change during the year, following on the changes sanctioned in England. The object of these changes was the improvement of the organisation and *personnel* of the corps, the increase of its efficiency in the duties of coast defence, and extension of the means of instruction in the higher and more technical work connected with the heavy armaments now in use. All officers of Garrison Artillery were granted a special rate of pay, called armament pay, in addition to ordinary pay, and non-commissioned officers and men appointed to special duties, such as position and range finders, first class and machinery gunners, and siege train specialists were also allowed special rates of pay. These rates

ARMY.

are issued only to certain members of each class, and to these only after they have undergone special training and have passed examinations in knowledge of siege material, armaments, mountings, range finding instruments, &c.

Early in the year there was carried out a change, which had for some time past been under consideration, viz:—the remodelling of the constitution of the regiments of Hindostani Infantry of the Bengal army. These regiments had, since 1863, been organised in class companies, but it was considered that the formation of class regiments would lead to increased efficiency and render the service more popular. Experience had shown that not only was a better class of recruit attracted to class regiments, but that all ranks were more happy and contented when serving exclusively with men of their own race and caste. The regimental system is more harmonious, promotion runs more fairly, and there is more *esprit de corps* in a class regiment than there can ever be in a regiment made up of class companies.

It was decided accordingly, that from the 15th May 1893, these regiments should be organised as class regiments, and linked as follows:—

Group.	Class.	Centre.
1st and 3rd Bengal Infantry	Brahmins	Allahabad.
2nd, 4th, and 16th Bengal Infantry	Rajputs	Agra.
7th, 8th, and 11th Bengal Infantry	Rajputs	Lucknow.
6th, and 10th Bengal Infantry	Jats	Delhi.
13th Bengal Infantry	Rajputs	Delhi.
5th, and 12th Bengal Infantry	Mussulmans	Bareilly.
17th, and 18th Bengal Infantry	Mussulmans	Benares.
9th, (linked with the 39th Garhwal Rifles) Bengal Infantry.	Khas Gurkhas	Lansdowne.

Steps in the same direction were taken during the year for the improvement of the Bombay army. The army was not considered as yet quite ready for the formation of class regiments, but it was decided to constitute class squadrons and class companies in place of the "general mixture" organisation which had hitherto prevailed. The method of re-organisation proposed was the arrangement of existing material in class companies within the regiments in which the men were serving, such arrangements being made, as far as possible, in accordance with the existing constitution of each regiment. This new organisation will lend itself easily to the formation of class regiments at some future time, whenever it may be desired to introduce such a system. At the same time, it was decided that men of unwarlike and inferior classes were to be gradually eliminated, and that improvements were to be made in the system of recruiting.

In the statement for the year 1891–92, a short account was given of the measures adopted for the reconstitution of a portion of the Madras army for service in Burma.

It was decided to re-organise nine regiments into local battalions composed of Punjabis and Gurkhas with some hill men drawn from the districts which supply the three Assam regiments. It was hoped that the large reduction which would thus be made in the numbers of the Madras army would lead to the gradual exclusion of the unwarlike Telingas, leaving the battalions in India composed mainly of Mussulmans and Tamils.

Accordingly, in 1893, another regiment, the 29th, was selected for reconstitution, under the designation of the 29th Regiment (the 7th Burma Battalion) of Madras Infantry. There are now, therefore, seven of these local battalions, a corresponding number of military police having been reduced.

During the year 1893–94, all three commands-in-chief of the army in India changed hands.

On the 7th April 1893, General Lord Roberts, V.C., G.C.B., gave up the office of Commander-in-Chief in India, which he had held since the 28th November 1885, and was succeeded by General Sir G. White, V.C., K.C.B.

On the 3rd May 1893, Lieut.-General Sir J. C. Dormer, K.C.B., Commander-in-Chief, Madras, died of wounds received when tiger-shooting, and was succeeded, on the 28th October 1893, by Lieut.-General C. M. Clarke, C.B.

On

ARMY.

On the 9th June 1893, Lieut.-General Sir John Hudson, K.C.B., Commander-in-Chief, Bombay, fell from his horse, and was instantaneously killed. He was succeeded by Lieut.-General C. E. Nairne, C.B., on the 5th September 1893.

In April 1893, in consequence of the representations received from Messrs. J. Stansfeld, M.P., and J. Stuart, M.P., the Secretary of State for India appointed a departmental committee to enquire into the rules, regulations, and practices in Indian Cantonments and elsewhere in India, with regard to prostitutes and to the treatment of venereal disease, in order to ascertain and report whether they complied with the resolution on the subject passed by the House of Commons on the 5th June 1888.*

The committee consisted of Mr. G. W. E. Russell, M.P., Under Secretary of State for India, chairman; Rt. Hon. J. Stansfeld, M.P.; General Sir D. M. Stewart, Bart., G.C.B.; Sir J. B. Peile, K.C.S.I.; Mr. H. J. Wilson, M.P., and Major-General O. R. Newmarch, C.S.I., secretary.

It examined several witnesses. Copies of the evidence were forwarded to the Government of India, and were by them referred to a small commission, composed of Mr. D. Ibbetson of the Indian Civil Service; Surgeon-Colonel J. Cleghorn, Inspector General of Civil Hospitals, Punjab, and Moulvie Muhammad Sami-ullah Khan. The report of the commission was brought to England by the first two commissioners, who also gave evidence before the departmental committee.

A majority of the committee, viz., Mr. Russell, the chairman, Mr. Stansfeld and Mr. Wilson, reported that the orders and regulations issued in India had, speaking generally, failed to effect the abolition of the old system of regulated and licensed prostitution, as intended by the resolution of the House of Commons, and that, in their opinion, the only effective method of preventing the practices carried on under that system was by means of special legislation.

General Sir D. Stewart and Sir J. Peile submitted a separate report, dissenting from the above conclusions, which, they thought, were not altogether supported by the evidence before the committee.

On a final review of the evidence and reports, the Secretary of State for India was of opinion that the orders of the Government of India had in some instances been disobeyed, and that practices which were allowed under the old system, but which were clearly inconsistent with the resolution of the House of Commons, had been continued up to a comparatively recent date. Having regard, therefore, to the failure of executive action to carry out the intention of Government, he had no alternative but to consider that the only effective method of preventing a recurrence of such practices was by means of legislation, which he then desired the Government of India to undertake.

MILITARY OPERATIONS, 1893-94.

MILITARY OPERATIONS.

Abor Expedition.

In January 1894, a small punitive force was sent against the Abors, on the Assam frontier. It consisted of 123 sepoys of the 44th Goorkha Rifles, and 454 military police, with two guns, and about 500 coolies and followers, and was commanded by Captain R. M. Maxwell, Indian Staff Corps. The operations lasted from the 14th January to the 26th March, and were carried out with success in a very difficult country, and in bad weather. Unfortunately, on the 26th or 27th February, a small detachment left behind at Bordak (16 sepoys and 19 followers, &c.) was massacred by the Abors. Our other losses were:—two sepoys, and four followers killed, and one British officer (Lieutenant L. W. P. East, R.A.), 25 sepoys and 11 followers wounded.

Burma.

A force was sent against the Pimpi section of the Siyin tribe in the North Chin Hills. Major E. R. J. Presgrave, Indian Staff Corps, was in command, and over 800 men of the 10th and 30th Madras Infantry were employed either in the operations themselves, or in garrisons of posts. There was little active opposition, but from December 1893 to April 1894, the troops were incessantly on the move in a very rough country. The objects of the operations were fully attained; the Pimpi section being thoroughly subdued, and the whole of the Siyin tribe and the North Chins taught a valuable lesson. The Nwengals were also disarmed. Our losses were:—one Native officer killed, and one rifleman wounded.

* "That, in the opinion of this House, any mere suspension of measures for the compulsory examination of women, and for licensing and regulating prostitution, is insufficient, and the legislation which enjoins, authorises, or permits, such measures ought to be repealed."

APPENDIX.

FINANCE.

TABLES showing the NET REVENUE and EXPENDITURE in the several Provinces of INDIA, and in ENGLAND.

Bengal.

BENGAL.

NET REVENUE.	1892-93.				1893-94.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	2,867,125	525,674	—	3,392,799	2,893,956	504,954	—	3,398,910
Opium	4,555,239	—	—	4,555,239	2,997,587	—	—	2,997,587
Salt	2,401,665	*—4,005*	—	2,397,660	2,366,396	5,053	—	2,371,449
Stamps	373,757	1,121,271	—	1,495,028	383,625	1,150,875	—	1,534,500
Excise	820,344	273,448	—	1,093,792	862,472	287,491	—	1,149,963
Provincial Rates	—	418,235	417,888	836,123	—	418,535	416,138	834,673
Customs	500,336	*—48,963*	—	451,373	534,976	*—48,367*	—	486,609
Assessed Taxes	209,253	202,193	—	411,446	215,860	208,581	—	424,441
Other Heads	*—3,238*	19,008	*—489*	15,281	*—11,819*	18,433	*—147*	6,467
TOTAL	11,724,481	2,506,861	417,399	14,648,741	10,243,053	2,545,555	415,991	13,204,599
NET EXPENDITURE:								
Interest	*—141,904*	*—2,097*	*—3,942*	*—147,943*	*—151,811*	507	*—3,324*	*—154,628*
General Administration	28,260	163,651	30,830	222,741	29,570	170,475	30,947	231,001
Law and Justice	—	885,394	—	885,394	—	919,030	—	919,030
Police	—	560,413	*—41,672*	518,741	—	534,938	*—43,361*	491,577
Education	—	197,191	99,171	296,362	—	200,275	103,683	303,958
Medical	—	144,223	7,906	152,129	—	152,342	11,612	163,954
Territorial and Political Pensions	118,611	—	—	118,611	112,461	—	—	112,461
Civil Superannuation	*—11,201*	162,485	437	151,721	*—6,875*	166,068	496	159,689
Stationery and Printing	163,381	124,370	5,099	292,850	192,588	113,478	4,673	310,739
Railway Revenue Account	*—479,073*	*—308,107*	—	*—787,180*	*—487,322*	*—353,105*	—	*—840,427*
Irrigation	—	245,144	*—173*	244,971	—	283,434	*—393*	283,041
Buildings and Roads	32,138	251,193	411,169	694,500	33,993	213,580	422,846	670,409
Other Heads	4,150	*—42,193*	44,982	6,939	20,008	*—27,972*	14,869	6,905
Provincial and Local Balances	—	*—9,826*	*—1,388*	*—11,214*	—	36,887	9,561	46,448
TOTAL	*—235,638*	2,371,841	552,419	2,638,622	*—257,389*	2,409,937	551,609	2,704,157
Surplus	12,010,119	135,020	*—135,020*	12,010,119	10,500,442	135,618	*—135,618*	10,500,442

NORTH-WEST PROVINCES AND OUDH.

NET REVENUE.	1892-93.				1893-94.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	4,621,539	870,997	—314,330	5,178,206	4,623,839	849,059	—313,733	5,159,215
Stamps	175,362	526,085	—	701,447	177,123	531,370	—	708,493
Excise	400,671	133,523	—	534,094	422,239	140,746	—	562,985
Provincial Rates	—	173,088	764,809	937,897	—	174,088	769,633	943,721
Assessed Taxes	117,962	111,870	—	229,832	121,513	115,171	—	236,684
Forest	36,507	36,507	—	73,014	37,458	37,458	—	74,916
Other Heads	37,162	—25,856	—1,392	9,914	42,675	—25,601	—865	16,209
TOTAL	5,389,103	1,826,214	449,087	7,664,404	5,424,897	1,822,291	455,035	7,702,223
NET EXPENDITURE:								
Interest	73,835	3,820	—1,909	75,746	73,190	—2,378	—1,983	68,829
General Administration	22,551	127,801	7,433	157,785	22,712	132,549	7,492	162,753
Law and Justice	—	507,463	—	507,463	—	536,532	—	536,532
Police	—	375,968	256,044	632,012	—	386,149	262,411	648,559
Education	—	38,493	129,426	167,919	—	40,687	126,241	166,928
Medical	—	66,772	39,069	105,841	—	71,749	37,008	108,757
Territorial and Political Pensions	106,604	—	—	106,604	104,932	—	—	104,932
Civil Superannuation	—11,831	175,562	1,465	165,196	—11,048	179,667	1,414	170,033
Stationery and Printing	—936	56,204	131	55,399	—835	51,549	140	50,854
Railway Revenue Account	—630,756	4,044	—	—626,712	—665,838	3,933	—	—661,905
Irrigation	—115,907	—14,898	—	—130,805	—114,954	—33,612	—	—148,566
Buildings and Roads	15,198	257,667	235,089	507,954	19,922	227,683	243,152	490,757
Other Heads	45,328	—5,453	8,488	48,363	44,878	3,001	8,595	56,474
Provincial and Local Balances	—	—16,752	23,374	6,622	—	—25,155	20,503	—4,652
TOTAL	—495,914	1,576,691	698,610	1,779,387	—527,041	1,572,353	704,973	1,750,285
Surplus	5,885,017	249,523	—249,523	5,885,017	5,951,938	249,938	—249,938	5,951,938

PUNJAB.

NET REVENUE.	1892-93.				1893-94.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	1,402,426	682,755	—116,819	1,968,362	1,462,610	701,810	—122,994	2,041,426
Stamps	97,705	293,115	—	390,820	98,576	295,730	—	394,306
Excise	132,892	44,297	—	177,189	143,961	47,987	—	191,948
Provincial Rates	—	58,282	350,150	408,432	—	59,550	363,983	423,533
Assessed Taxes	73,516	60,326	—	133,842	77,053	62,512	—	139,565
Other Heads	29,330	13,957	—381	42,906	38,697	19,964	—108	58,553
TOTAL	1,735,869	1,152,732	232,950	3,121,551	1,820,897	1,187,553	240,881	3,249,331
NET EXPENDITURE:								
General Administration	19,322	98,688	12,896	130,906	17,918	102,434	13,198	133,550
Law and Justice	—	336,023	45	336,068	—	347,700	—46	347,654
Police	—	320,181	—4,012	316,169	—	311,000	—3,950	307,050
Education	—	75,852	53,721	129,573	—	70,019	54,946	124,965
Medical	—	56,386	31,670	88,056	—	57,583	31,656	89,239
Political	127,408	—	—	127,408	155,767	—	—	155,767
Territorial and Political Pensions	35,196	—	—	35,196	33,584	—	—	33,584
Civil Superannuation	—6,424	79,205	548	73,329	—6,113	85,569	352	79,808
Stationery and Printing	—2,390	37,054	2,029	36,693	—2,634	37,152	2,159	36,677
Railway Revenue Account	—730,718	—	—	—730,718	—1,101,377	—	—	—1,101,377
Irrigation	—406,888	23,515	—1,048	—384,421	—274,095	6,122	—757	—268,730
Buildings and Roads	49,944	273,118	87,622	410,684	104,660	234,069	78,255	416,984
Other Heads	33,480	1,803	8,220	43,503	35,423	8,145	10,503	54,071
Provincial and Local Balances	—	—106,050	—1,784	—107,834	—	—22,699	5,024	—17,675
TOTAL	—981,065	1,195,775	189,907	504,617	—1,036,867	1,237,094	191,340	391,567
Surplus	2,616,934	—43,043	43,043	2,616,934	2,857,764	—49,541	49,541	2,857,764

BURMA.

Burma.

NET REVENUE.	1892-93.				1893-94.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	1,242,050	584,015	1,641	1,827,706	1,295,125	595,785	1,499	1,892,409
Salt	161,559	—	—	161,559	166,926	—	—	166,926
Stamps	59,124	92,400	—	151,524	59,614	91,963	—	151,577
Excise	364,933	103,728	—	468,661	304,290	83,020	—	387,310
Provincial Rates	—	—	97,427	97,427	—	—	97,995	97,995
Customs	597,408	*—14,573*	—	582,835	520,283	*—14,705*	—	505,578
Assessed Taxes	45,029	29,739	—	74,768	48,911	32,792	—	81,703
Forest	274,645	111,073	—	385,718	285,502	107,593	—	393,095
Other Heads	73,375	*—306*	*—46*	73,023	46,036	*—1,341*	*—48*	44,647
TOTAL	2,818,123	906,076	99,022	3,823,221	2,726,687	895,107	99,446	3,721,240
NET EXPENDITURE:								
General Administration	40,621	66,068	2,214	108,903	45,229	67,152	2,288	114,669
Law and Justice	94,443	136,715	—	231,158	94,885	157,937	—	252,822
Police	638,956	266,892	2,039	907,887	634,123	274,770	*—1,071*	907,822
Marine	42,096	3,722	2,066	47,884	44,258	11,044	3,731	59,033
Education	9,925	29,788	13,143	52,856	10,007	34,535	14,421	58,963
Medical	17,433	19,901	4,420	41,754	19,561	21,515	5,153	46,229
Political	35,016	28	—	35,044	40,146	—	—	40,146
Stationery and Printing	*—2,159*	45,330	—	43,171	*—468*	48,959	—	48,491
Railway Revenue Account	25,539	*—116,444*	—	*—90,905*	51,355	*—40,331*	—	11,024
Irrigation	112,317	67,433	1,171	180,921	49,085	53,958	891	103,934
Buildings and Roads	407,695	287,416	55,533	750,644	470,235	318,348	93,978	882,561
Other Heads	29,152	36,641	*—15,057*	50,736	24,530	37,873	*—14,068*	48,335
Provincial and Local Balances	—	66,642	29,437	96,079	—	*—90,853*	*—5,577*	*—96,530*
TOTAL	1,451,034	910,132	94,966	2,456,132	1,482,946	895,107	99,446	2,477,499
Surplus	1,367,089	*—4,056*	4,056	1,367,089	1,243,741	—	—	1,243,741

FINANCE.

Central Provinces.

CENTRAL PROVINCES.

NET REVENUE.	1892-93.				1893-94.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	300,778	274,169	*-43,405*	531,542	298,667	269,232	*—44,968*	522,931
Stamps	40,729	122,186	—	162,915	41,917	125,749	—	167,666
Excise	203,533	67,844	—	271,377	206,073	68,691	—	274,764
Provincial Rates	—	22,308	77,189	99,497	—	21,670	77,534	99,204
Assessed Taxes	25,604	24,505	—	50,109	25,489	24,238	—	49,727
Forest	18,996	18,995	—	37,991	10,835	10,835	—	21,670
Other Heads	45,879	1,650	*—45*	47,484	43,404	1,393	*—104*	44,696
TOTAL	635,519	531,657	33,739	1,200,915	626,385	521,808	32,465	1,180,658
NET EXPENDITURE:								
General Administration	7,355	41,767	2,784	51,906	7,051	45,813	2,876	55,740
Law and Justice	—	95,024	—	95,024	—	96,606	—	96,606
Police	—	135,521	*—11,635*	123,886	—	141,486	*—12,695*	128,791
Education	—	26,559	23,739	50,298	—	26,660	24,744	51,404
Medical	—	29,394	5,339	34,733	—	30,906	5,061	35,967
Territorial and Political Pensions	26,217	—	—	26,217	25,812	—	—	25,812
Railway Revenue Account	*—266,202*	—	—	*—266,202*	*—329,715*	—	—	*—329,715*
Buildings and Roads	2,489	169,028	24,120	195,637	2,745	177,666	25,211	205,612
Other Heads	2,516	47,586	*—2,377*	47,725	11,069	52,564	1	1
Provincial and Local Balances	—	*—21,798*	345	*—21,453*	—	*—60,*	*—1*	
TOTAL	*—227,625*	523,081	42,315	337,771	*—293,038*	510,919	3	,210 159,498
Surplus	863,144	8,576	*—8,576*	863,144	919,423	10,889	—	452,078
								387,525

Assam.

ASSAM

NET REVENUE.	1892-93.				1893-94.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	112,700	267,084	—	379,784	164,487	296,654	—	461,141
Opium	38,677	—	—	38,677	40,174	—	—	40,174
Stamps	19,477	58,433	—	77,910	20,273	60,819	—	81,092
Excise	193,094	64,365	—	257,459	203,594	67,865	—	271,459
Provincial Rates	—	—	54,720	54,720	—	—	60,848	60,848
Other Heads	18,415	17,202	*—17*	35,600	30,937	23,773	*—91*	54,619
TOTAL	382,363	407,084	54,703	844,150	459,465	449,111	60,757	969,333
NET EXPENDITURE:								
General Administration	5,078	24,538	280	29,896	5,270	29,065	289	34,624
Law and Justice	—	47,676	—	47,676	—	51,394	—	51,394
Police	—	110,052	*—5,468*	104,584	—	123,572	*—5,624*	117,948
Education	—	13,367	16,465	29,832	—	14,863	17,155	32,018
Medical	—	19,320	8,250	27,570	—	18,850	9,289	28,139
Railway Revenue Account	*—79,436*	8,799	—	*—70,637*	7,065	8,284	—	15,349
Buildings and Roads	86,648	126,879	50,909	264,436	116,670	153,826	60,177	330,673
Other Heads	*—5,119*	53,715	2,255	50,851	*—911*	35,367	2,487	36,943
Provincial and Local Balances	—	9,336	*—24,586*	*—15,250*	—	*—28,532*	19,406	*—9,126*
TOTAL	7,171	413,682	48,105	468,958	128,094	406,689	103,179	637,962
Surplus	375,192	*—6,598*	6,598	375,192	331,371	42,422	*—42,422*	331,371

INDIA GENERAL, *i.e.*, the Departments and Districts not administered directly by the Lieutenant Governors and Chief Commissioners of the Provinces previously enumerated.

NET REVENUE.	1892-93.				1893-94.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	91,117	—	—3,053	88,064	126,915	—	—2,933	123,982
Salt	2,017,810	—	—	2,017,810	1,726,646	—	—	1,726,646
Stamps	123,725	—	—	123,725	133,564	—	—	133,564
Excise	100,323	—	711	101,034	92,269	—	751	93,020
Assessed Taxes	148,242	—	—	148,242	147,897	—	—	147,897
Tributes from Native States	219,271	—	—	219,271	210,788	—	—	210,788
Assignments and Compensations	—302,436	—	—	—302,436	—319,477	—	—	—319,477
Other Heads	2,411	—	6,852	9,263	—2,730	—	8,105	5,375
TOTAL	2,400,463	—	4,510	2,404,973	2,115,872	—	5,923	2,121,795
DITURE:								
	—99,105	—	—28	—99,133	—284,741	—	—30	—284,771
	—230,244	—	73	—230,171	—286,257	—	72	—286,185
	—275,279	—	—	—275,279	—283,518	—	—	—283,518
	—56,144	—	—	—56,144	—30,980	—	—	—30,980
Administration	422,372	—	133	422,505	441,372	—	126	441,498
Law and Justice	116,659	—	—48	116,611	131,643	—	13	131,656
Police	55,138	—	135	55,273	56,213	—	393	56,606
Marine	166,722	—	—	166,722	120,591	—	—	120,591
Political	489,528	—	24	489,552	585,407	—	24	585,431
Scientific and other Minor Departments.	202,172	—	90	202,262	214,935	—	32	214,967
Stationery and Printing	—142,964	—	12	—142,952	—140,184	—	3	—140,181
Railway Revenue Account	—4,256,931	—	—	—4,256,931	—4,510,831	—	—	—4,510,831
Irrigation	648,691	—	—	648,691	639,633	—	—	639,633
Buildings and Roads	1,060,259	—	2,616	1,062,875	963,195	—	2,871	966,066
Army	8,563,691	—	—	8,563,691	8,931,469	—	—	8,931,469
Special Defence Works	255,723	—	—	255,723	162,947	—	—	162,947
Other Heads	67,669	—	954	68,623	—58,560	—	952	—57,608
Local Balances	—	—	549	549	—	—	1,467	1,467
TOTAL	6,987,957	—	4,510	6,992,467	6,652,334	—	5,923	6,658,257
Surplus	—4,587,494	—	—	—4,587,494	—4,536,462	—	—	—4,536,462

FINANCE.

Madras.

MADRAS.

NET REVENUE.	1892-93.				1893-94.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	2,949,768	1,085,744	*—309,684*	3,725,828	3,257,241	1,130,149	*—389,951*	3,997,439
Salt	1,563,884	*—34,450*	—	1,529,434	1,470,685	*—40,552*	—	1,430,133
Stamps	176,162	528,489	—	704,651	177,686	533,055	—	710,741
Excise	865,300	288,432	—	1,153,732	920,219	306,740	—	1,226,959
Provincial Rates	—	—	912,670	912,670	—	—	678,181	678,181
Customs	160,958	*—11,349*	—	149,609	169,411	*—12,782*	—	156,629
Assessed Taxes	109,311	91,792	—	201,103	121,052	102,068	—	223,120
Forest	—	—	—	—	29,585	29,586	—	59,171
Tributes from Native States	344,952	—	—	344,952	344,952	—	—	344,952
Assignments and Compensations	*—116,362*	—	—	*—116,362*	*—116,131*	—	—	*—116,131*
Other Heads	21,298	29,128	*—2,757*	47,669	6,158	10,333	*—8,506*	7,985
TOTAL	6,075,271	1,977,786	600,229	8,653,286	6,380,858	2,058,597	279,724	8,719,179
NET EXPENDITURE:								
General Administration	26,855	100,151	28,524	155,530	28,950	100,338	3[illegible]	[illegible]
Law and Justice	—	449,456	—	449,456	—	452,078	—	[illegible]
Police	—	375,751	—	375,751	—	387,525	—	[illegible]
Education	—	140,659	84,005	224,664	—	143,191	89,[illegible]	[illegible]
Medical	—	113,666	124,015	237,681	—	123,000	125,175	248,[illegible]
Territorial and Political Pensions.	79,983	—	—	79,983	75,678	—	—	75,678
Civil Superannuation	*—10,653*	132,613	1,100	123,060	*—9,838*	134,139	1,099	125,400
Stationery and Printing	24,736	64,075	—	88,811	21,491	68,918	—	90,409
Famine Relief	—	24,426	—	24,426	—	—	—	—
Construction of Protective Works.	1,029,043	—	—	1,029,043	1,101,017	—	—	1,101,017
Construction of Railways (charged to Revenue, in addition to that under Protective Works).	201,225	91,902	—	293,127	—	63,993	—	63,993
Railway Revenue Account	*—341,435*	—	—	*—341,435*	*—366,173*	1,066	—	*—365,107*
Irrigation	*—414,496*	317,143	1,888	*—95,465*	*—444,370*	295,568	780	*—148,022*
Buildings and Roads	13,053	240,249	368,717	622,019	15,052	246,490	280,402	541,944
Army	3,386,182	—	—	3,386,182	3,330,718	—	—	3,330,718
Other Heads	12,778	51,293	*—39,339*	24,732	13,658	53,894	*—36,214*	31,338
Provincial and Local Balances	—	*—159,081*	66,802	*—92,279*	—	39,036	*—256,789*	*—223,153*
TOTAL	4,007,271	1,942,303	635,712	6,585,286	3,706,183	2,103,836	234,485	6,164,504
Surplus	2,068,000	35,483	*—35,483*	2,068,000	2,614,675	*—45,239*	45,239	2,614,675

FINANCE.

BOMBAY.

Bombay.

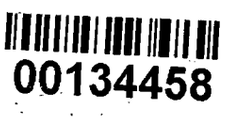
ORDINARY EXPENDITURE	1892-93.				1893-94.			
	Imperial.	Provincial.	Local.	Total.	Imperial.	Provincial.	Local.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Land Revenue - - -	1,999,916	2,007,706	—10,163	3,977,442	1,987,991	2,009,489	—17,823	3,979,658
Opium - - - - -	1,673,065	—	—	1,673,065	1,802,016	—	—	1,802,016
Salt - - - - -	2,093,347	9,709	—	2,103,056	2,085,914	9,945	—	2,095,859
Excise - - - - -	510,179	412,013	—	943,200	553,547	401,241	—	954,788
Stamps - - - - -	744,993	346,022	—	991,015	777,644	353,218	—	1,030,862
Provincial Rates - -	—	—	296,051	296,051	—	—	311,556	311,556
Customs - - - -	280,809	4,307	—	285,116	283,227	4,817	—	288,044
Assessed Taxes - - -	203,603	174,217	—	377,820	203,603	174,216	—	377,819
Forest - - - - -	60,301	98,054	—	158,355	60,374	98,374	—	158,748
Tributes from Native States -	125,340	—	—	125,340	127,360	—	—	127,360
Assignments and Compensations	—56,243	—997,276	—	—1,053,519	—51,135	—970,019	—	—1,021,154
Other Heads - - - -	—33,090	—6,850	1,660	—38,280	—33,775	—4,772	—534	—39,081
TOTAL - - -	7,599,910	2,272,902	287,548	10,160,360	7,803,766	2,084,009	292,199	10,179,974
NET EXPENDITURE.								
Interest - - - -	—197,676	—5,442	334	—202,784	—215,315	—6,425	373	—220,367
Mint - - - - -	—158,449	—	—	—158,449	—112,787	—	—	—112,787
General Administration -	49,980	134,772	4,660	189,412	49,879	127,110	4,717	181,706
Law and Justice - -	—	446,993	—	446,993	—	423,772	—	423,772
Police - - - - -	—	461,778	—19,404	442,374	—	474,967	—19,583	455,384
Education - - - -	—	130,851	122,799	253,650	—	136,913	129,630	266,543
Medical - - - - -	—	130,277	18,170	148,447	—	139,706	11,337	151,043
Political - - - - -	49,319	39,809	—	89,128	61,721	37,656	—	99,377
Territorial and Political Pensions	62,690	—	—	62,690	74,389	—	—	74,389
Civil Superannuations - -	—2,782	127,891	34	125,143	—3,057	143,336	289	140,564
Stationery and Printing -	23,774	65,097	321	89,192	24,503	66,830	710	92,043
Construction of Provincial Railways	—	43,161	—	43,161	—	7,686	—	7,686
Railway Revenue Account -	—146,762	12	—	—146,751	—155,022	—2,617	—	—157,639
Irrigation - - - - -	47,115	—760	—	46,355	93,446	10,855	—	104,301
Buildings and Roads - - -	45,080	271,478	312,672	629,229	58,695	252,500	193,706	504,899
Army - - - - -	2,849,175	—	—	2,849,175	2,934,404	—	—	2,934,404
Other Heads - - - -	25,434	28,578	3,960	57,972	19,460	31,312	9,803	60,575
Provincial and Local Services -	—	—23,583	—8,651	—32,234	—	19,449	23,419	42,868
TOTAL - - -	2,721,354	1,856,346	434,844	5,012,544	2,950,536	1,904,774	358,396	5,213,706
Net Total - - -	4,878,556	416,556	—146,704	5,147,816	4,853,230	179,235	—65,803	4,966,662

NET EXPENDITURE in *England*, with the EXCHANGE thereon.

NET EXPENDITURE.	1892-93.			1893-94.		
	Sterling.	Exchange.	Total.	Sterling.	Exchange.	Total.
	£.	Rs.	Rs.	£.	Rs.	Rs.
Stores purchased for India	61,277	38,817	50,094	38,873	28,260	67,133
Interest	2,409,174	1,449,420	3,858,594	2,495,151	1,621,735	4,117,103
Post Office	95,658	37,550	133,208	103,993	67,281	171,274
Telegraph	132,746	79,863	212,609	137,317	89,208	226,525
General Administration	255,345	153,742	409,287	265,219	172,242	437,461
Marine	290,174	174,758	465,234	245,443	159,507	404,950
Pensions	23,827	13,432	37,259	21,958	14,270	36,228
Scientific and other minor Departments	43,615	25,939	69,852	30,838	25,664	56,502
Territorial and Political Pensions	28,218	17,578	45,796	21,950	14,265	36,215
Civil Furlough Allowances	207,870	126,083	332,850	197,521	128,362	325,883
Superannuation	1,709,546	1,028,506	2,738,052	1,656,147	1,095,768	2,751,915
Stationery and Printing	52,868	31,807	84,675	51,510	33,475	84,985
Railway Revenue Account	1,733,260	3,443,258	5,176,518	5,741,083	3,732,378	9,473,461
Buildings and Roads	98,864	59,480	158,344	78,518	51,015	129,533
Army Effective	2,462,809	4,681,617	7,044,426	2,133,032	1,387,035	3,520,067
Non-effective	12,220,411	7,483,558	19,703,969	2,210,067	1,436,742	3,646,809
Special Defence Works	126,892	76,005	202,897	98,206	63,831	162,037
Other Heads	41,113	28,065	69,178	39,043	25,374	64,417
TOTAL	24,514,668	19,694,776	25,209,084	15,488,581	10,139,617	25,792,938

SUMMARY.

PROVINCES, &c.	1892-93.		1893-94.	
	Surplus.	Deficit.	Surplus.	Deficit.
	Rs.	Rs.	Rs.	Rs.
BENGAL	12,910,119		10,109,442	
NORTH-WEST PROVINCES and OUDH	5,885,017		5,961,988	
PUNJAB	2,616,934		2,857,761	
BURMA	1,367,089		1,243,741	
CENTRAL PROVINCES	865,144		919,423	
ASSAM	875,192		991,371	
INDIA GENERAL	—	4,557,491	—	1,336,167
MADRAS	2,068,000		2,511,675	
BOMBAY	4,377,671		4,363,869	
EFFECTS OF EXCHANGE	—	25,809,084	—	23,702,158
TOTAL		838,412		1,540,938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